

# FLIGHT

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.  
OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM.

No. 175. (No. 18, Vol. IV.)

MAY 4, 1912.

[Registered at the G.P.O.  
as a Newspaper.]

[Weekly, Price 1d.  
Post Free, 1½d.]



Scenes at the London Aerodrome Weekly Flying Meeting, Hendon, Showing the Car Enclosure.

# EDITORIAL COMMENT.

## Aviation Insurance.

In our issue of last week we published an interesting letter from Mr. P. Harrington Edwards, dealing with the difficulty which exists in getting the great insurance companies to accept flying risks. Our correspondent suggested that we should seriously take up the question, with a view to bringing the companies to a more fitting frame of mind, and put it to us that we should collect and collate statistics of the amount of flying done in this country and its relation to accidents. We should greatly like to do as he desires, but the task is full of difficulty as things stand at present. The fact of the matter is, that from the point of view of the insurance companies, flying is comparatively at present a negligible quantity. In other words, flying has not developed to that size as a movement which will make it worth while for the conservative insurance companies to give it really serious attention as a possible means of revenues. Later on things will, without question, be different, but the situation to-day is substantially as we say. There can be no other explanation of the reluctance of the companies to undertake flying business than that they have not treated it actuarially. Mr. Edwards, in a further letter to us, says that he has often managed to convince branch officials of the desirability of this business, but that the moment the matter comes before headquarters officials the case is altered and the business peremptorily turned down. That can manifestly only be for one of two reasons, either that the sum total of the business to be done does not make it worth while for the companies to undertake it, or that they consider the risk not worth the candle. Now, if we know anything about insurance companies, the first reason is not at all the most likely one. All is fish that comes to their nets and they will gamble against anything, from a collision between the Earth and Mars to ingrowing nails, unless they feel they are betting against a certainty. Here we have the real reason of their dislike to aviation risks—they feel they are betting against that certainty. Manifestly, they would not think that way if they had taken the trouble to go into the figures of flight and to ascertain the relation of accidents to miles flown, with an actuarial allowance for the possible greater risk taken by the insured as against the uninsured aviator. Unfortunately for the would-be insurer the view taken by the insurance companies is that of the uninstructed man in the street, who reads of a flying accident and remarks without thinking, "dashed dangerous things these aeroplanes. Oughtn't to be allowed," and goes on his way thinking that the last word has been said. If, however, he stopped to think it out in the light of ascertained facts, he would, greatly to his astonishment, no doubt find that so far from the aeroplane being the dangerous instrument he imagines it to be it is in reality remarkably safe when capably and skilfully handled. Far better for an insurance company to put into its policy "no mountain climbing allowed" than "flying prohibited."

As we have said previously, there is perhaps not a vast amount of business to be done in aviation insurance at the moment, but even so there must be enough to make it well worth the while of some enterprising company to go thoroughly into the possibilities of a flying branch. Especially so as the science is not even yet out of its swaddling clothes, and in the years to come it must

unquestionably prove an exceedingly valuable source of revenue to those whose business is in insurance, and the company which is first in the field now will secure and hold the cream of it all.

\* \* \*

## The Royal Aircraft Factory.

Somewhat of a revulsion of feeling seems to have set in among those who were, until quite recently, among the most severe critics of the Government apathy towards, and neglect of, aviation. In some degree we plead guilty ourselves, for until there were signs of a rattling among the dry bones this journal was not the least mordant of the Government's critics, nor do we regret it, for as a result of all that has been written and said here and elsewhere, things are really moving at last. In the campaign for an efficient aerial service no journal has taken a stronger line than the *Daily Mail*, and it is therefore the more pleasing to notice that it still maintains its interest in flight and that it is disposed to give credit where it is due. It is not long ago—only a matter of weeks, in fact—since our contemporary published a trenchant article from the pen of an aeronautical correspondent criticising the Government plans, and cursing, among other institutions, the Royal Aircraft Factory. Now—a few days ago—another article appears in which it is all taken back and misunderstandings cleared up. We ourselves dealt with the same subject of the status and work of the factory a fortnight since, and we cannot help feeling pleased that what we wrote is now confirmed in the opinions of the *Mail*. We cannot do better than quote and put on record the deductions of its correspondent after a visit to Farnborough. This is what he says:—

"I am certain that a visit to Farnborough would convince the majority of manufacturers, first, that with the limited capital at their disposal they cannot compete scientifically with the factory; and, secondly, that the factory has not the least intention of competing with them, being concerned only to discover the best possible type and to leave the reproduction of that type in private hands.

"**Good Work for the Nation.**—The factory is, in fact, playing the manufacturer's game, because it is doing good work for the national aeronautical service. The better progress the factory makes the more aeroplanes will be ordered from home constructors, and the fewer from French makers. The dismal period of official boycott and official apathy is passing, and the orders recently given to private firms justify for the first time the consideration of flying as a practical investment in England.

"Whether Government encouragement two or three years ago would have brought private firms at the present time to the pitch which the factory has attained is an argument which might be sustained. But the past may look after itself. The factory, at any rate, is doing excellent service. Its portable aeroplane sheds, its hydro-aeroplane experiments on Fleet Pond, its portable airship shed (weighing a trifle of seventy-five tons), its wind tunnels and whirling tables, testing appliances and wind-tower, are all helping aeronautics onward."

Precisely what we said. The factory is not intended to compete with private enterprise but to help along the scientific and experimental sides of flight and its appurtenances—nothing more and nothing less. Beyond all doubt the Royal Aircraft Factory will, provided its scope be limited to the present intentions, perform an excellent work in the development of aviation. But it must be seen to that the ambitions of individuals do not lead to any overlapping extensions of its sphere.



## FLIGHT PIONEERS.



MR. VIVIAN HEWITT,

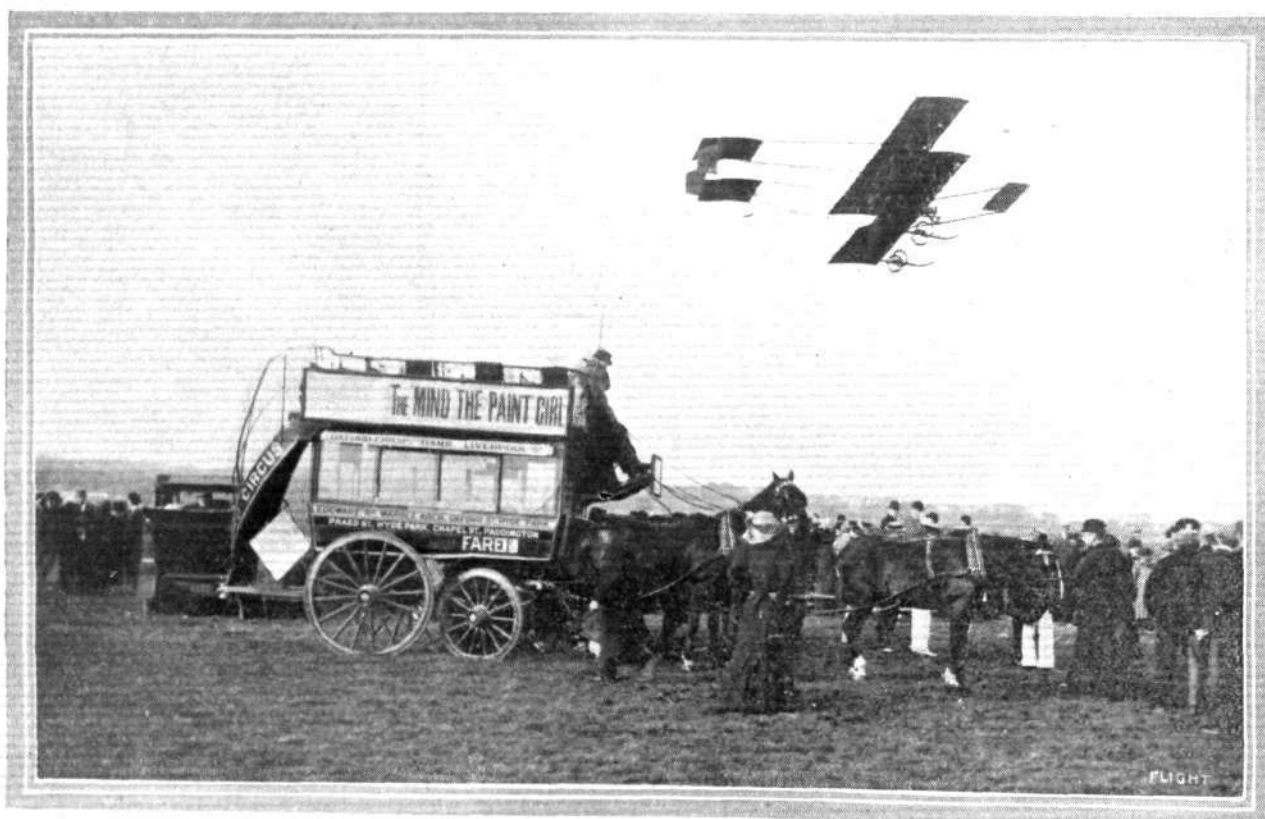
Who, on Friday, April 26th, flew over the Irish Sea from Holyhead to Dublin on his 50-h.p. Gnome-engined Blériot in 1 hr. 15 mins.

# THE SECOND SPRING MEETING AT HENDON.



Mr. Claude Grahame-White and Miss Dorothy Taylor, his fiancée, at the London Aerodrome on Saturday.

LAST Saturday was to have been a red letter day at Hendon, as it was the second anniversary of the London to Manchester flight, but the wind was in a blustering mood, and instead of moderating as the crowd of spectators steadily grew, until it was about 6,000 strong, the wind increased from 18 miles to the neighbourhood of 25 m.p.h. The crowd patiently waited for some time in the hope that conditions would improve, but at about twenty minutes to four an announcement was made from the Judges' Box that it was then too windy for any of the contests to be held. Mr. Hucks, however, would give an exhibition flight—according to the megaphone man—"on a 50-h.p. Gnome motor." A Blériot machine was brought out, started up, and Hucks guided it round the aerodrome once or twice, being tossed about violently by the wind, and eventually making a somewhat bumpy landing. A few minutes after, the roar of a Gnome engine by the Blériot shed attracted a number of the visitors in that direction to watch a machine brought out for Mr. Hamel, whose own monoplane was still at Canterbury, where he had landed on his way back from the Continent. Mr. Hamel, with this machine, climbed to a good height, but after about eight minutes, returned to the 'drome and reported that the wind was quite too much, on the verge of being too unpleasant for flying. While in the air his Blériot was buffeted about a good deal, although it seemed to move a little steadier than Hucks'. Another exhibition by the latter pilot helped to pass the time until just before five, when the megaphone man was heard again announcing that as it was the second anniversary of the London to Manchester flight, Mr. Grahame-White would ascend on a biplane, similar to that which he used in the race. He forthwith rose on the Farman biplane, and did a very pretty bit of flying, at the end of which there was an exciting landing, which drew forth rounds of applause from the spectators. Lewis Turner then took his turn on the biplane, and put in some good exhibition flying. About the same time Hamel started off for Croydon, where he had an appointment to give an exhibition flight. About half an hour later, however, Hamel was again sighted making for the aerodrome, and after executing a series of fine spiral *vol planés*, he swooped down over the tops of the Blériot sheds into the Aerodrome. He explained that he was unable to go on to Croydon, as in the neighbourhood of Brentford he had encountered a bank of thick fog which rendered further attempt hopeless. About six o'clock preparations were made for starting the cross-country handicap, although in view of the weather it was decided to only have one round of the course, which this time was to the Elstree Water Works, a turning-point which we have advocated recently, as it permits the



MR. LEWIS TURNER FLYING AT HENDON ON SATURDAY.—Note, in contrast, the ancient 'bus relic.

competitors to be in sight throughout the race. Five numbers were put up on the starting board, viz., No. 3, Hamel (Blériot); No. 4, Ewen (Caudron); No. 6, Hucks (Blériot); No. 9, Turner (Farman); and No. 14, Valentine (Bristol). By way of a preliminary canter, Lewis Turner took a spin on the Farman, but found the wind not to his liking and retired. Ewen also had a trial run, starting from the far end of the ground near his hangar. He remained aloft for a few minutes, but on coming down decided not to start in the race. The other three, however, decided to risk it and the event proved much more exciting than the one held on the previous week. Hamel was at scratch, and allowed Hucks twenty-six seconds and Valentine thirteen seconds, but by the time the machines were clear of the aerodrome, Hamel had already obtained the lead. All the machines were started at right angles to the direction to be taken, so had to make a left-hand turn when in the air. Both Hucks and Valentine took this turn rather widely, but Hamel scored heavily by cutting round sharply as soon as his machine was off the ground. Hamel was the first to complete the ten miles, and his time was 11 mins. 39 secs., Valentine being second in 12 mins. 5½ secs., and Hucks third in 12 mins. 28½ secs. The latter lost some time owing to passing the finishing mark on the wrong side and having to recross it to qualify. The firing of the finishing bomb then intimated to the remaining spectators that the meeting was officially at an end.

Cross-Country Handicap Race.—Cup and 20 sovs. ; 10 sovs.

	Time : Handicap.		Net.	
	m.	s.	m.	s.
1. G. Hamel (50-h.p. Gnome-Blériot), scratch...	12	5	11	39
2. J. Valentine (50-h.p. Bristol-Gnome), 13s....	12	18½	12	5½
3. B. C. Hucks (50-h.p. Gnome-Blériot), 26s....	12	28½	12	28½

#### To-day's Meeting at Hendon.

THE programme for to-day's meeting at the London Aerodrome, Hendon, as usual, consists of four events. The proceedings are timed to start at three o'clock, with the passenger-carrying speed handicap over a distance of twelve miles, followed, at a quarter to four, by a 20 miles cross-country handicap. The third event, at a quarter to five, will be an altitude contest, while the last item—the grand speed handicap, over a distance of twelve laps of about eighteen miles—will, weather permitting, start as near as possible at half past five.



Mr. Grahame-White about to start an exhibition flight at Hendon last Saturday in remembrance of the second anniversary of the great Manchester flight.



Mr. B. C. Hucks getting away for an exhibition flight on Saturday last at Hendon.



## FROM THE BRITISH FLYING GROUNDS.

### Brooklands Aerodrome.

DURING the past week April has apparently been under the mistaken impression that it was March, for while showers have been totally absent a strong nor'-easter has been putting in a lot of over-time, and a nor'-easter at Brooklands manages to twist itself into the most marvellous gusts and eddies after passing over the encircling hills.

On Wednesday, the 24th, flying was quite out of the question, and on Thursday the only machine out was the Bristol biplane, on which Pizey and Fleming were instructing their pupils, Dawes and Sheppard, in getting off and landing, it being too windy for the pupils to be out for solos.

Friday was slightly better towards evening, when Moorhouse brought out his Blériot-type monoplane, intending to fly over to Hendon. After a few circuits of the aerodrome to get altitude he came down again, finding it impossible to distinguish land marks through the smoke haze drifting down the Thames valley from London. Pizey and Fleming were out soon after on a Bristol biplane, but found it very choppy, and later Prier brought out a two-seater Bristol monoplane for its first trial. On his second circuit, when at a height of about 100 ft., and well out over the sewage farm, the engine suddenly stopped through the switch wire short-circuiting, and he was forced to make a landing in the sewage farm. The ground was very soft, and after running a few yards the wheels and skids sunk in, turning the machine completely over. Prier remained inside, escaping unhurt. The fuselage was intact, but the wheel base and one plane were rather badly broken. Next morning was too windy for school work, the only person to venture out being Lieut. Porte on the racing Deperdussin, who flew for about ten minutes. Later on, "Partridge" brought out the Hanriot, now fitted with an A.B.C. motor, and made a number of straight flights. The wind was very bad, once tilting him over when turning on the ground, so that a wing-tip touched earth, but without doing any damage. The little monoplane seemed to fly very strongly with its new motor, leaving the ground, tail well up, at about half-throttle.



Miss Dorothy Prentice attending to the motor of the machine in which she practises at Hendon Aerodrome.

In the afternoon a "quick get-off" handicap was arranged by the Brooklands Aero Club, which has just been formed. Despite the bad weather there were ten starters, namely:—

T. O. M. Sopwith	...	70-h.p. Gnome-Blériot monoplane.
W. Moorhouse	...	50-h.p. Moorhouse-Radley monoplane.
H. Petre	...	35-h.p. Deperdussin monoplane.
G. Sabelli	...	35-h.p. Deperdussin monoplane.
Duigan	...	35-h.p. Avro biplane.
C. L. Pashley	...	40-h.p. Humber monoplane.
H. Fleming	...	50-h.p. Bristol biplane.
C. P. Pizey	...	50-h.p. Bristol biplane.
F. P. Raynham	...	60-h.p. Howard-Wright biplane.
T. O. M. Sopwith	...	60-h.p. Howard-Wright biplane.

Fleming proved the winner, getting off in 5½ secs. and receiving 1 sec. handicap. Pizey was second, ½ sec. slower, and Sabelli and Sopwith tied for third place. This tie was flown off, Sabelli securing third place. Moorhouse's engine was missing badly, so that he did not get off well, but once up he gave an excellent display. When landing he came down in front of Sabelli, who was just getting off, the latter saved a collision by a splendidly executed banked turn. Sopwith gave an exhibition on his Blériot, but otherwise there was not much flying.

The next day, Sunday, was very windy, but to amuse the crowd another quick get-off handicap was organised. Only four starters turned up, Sopwith being the winner on his Howard-Wright biplane, with Fleming second and Sabelli third. Moorhouse gave an exhibition flight, at times making hardly any headway against the wind.

On Monday last there was a short period of comparative calm in the early morning, when Col. Hotchkiss on Vickers and Cadet Robinson on the Deperdussin both put in some rolling.

On Tuesday, "Partridge" was out again on the Hanriot, reaching an altitude of about 120 ft. and flying well for some time. Fleming gave Sheppard tuition on the Bristol, and Robinson was again out on the Deperdussin. In the evening it became comparatively calm. The first out was Col. Hotchkiss on Vickers, rolling. Vickers No. 4 was also making straight flights, piloted by Macdonald. Sabelli on the racing Deperdussin made a long flight at about 1,000 ft., coming down with a very steep *vol plane*. "Partridge" on the Hanriot also made a good long flight, finally coming down because his hand got tired working the pressure bulb. Raynham gave some tuition on the old Howard-Wright biplane, known as the "Family Tank," and C. L. Pashley flew several circuits on his Humber. Parke tried the totally enclosed Avro-monoplane for the first time, finding it difficult to keep her on the ground as the engine will not run very slowly. Earlier in the day, Duigan had put up a good flight on his Avro biplane.

During the week two new tractor biplanes arrived. The first was the Coventry ordnance machine, designed by W. O. Manning and built by Howard T. Wright. This machine simply bristles with original points. The fuselage is very wide, carrying pilot and passenger side by side, the backs of the seats being streamlined off somewhat as in a Breguet. The motor, a 100-h.p. Gnome, drives a geared down tractor through a 2 to 1 chain reduction gear. What strikes one most at first sight is the large gap between the two planes and the large extensions fitted to the top plane. The wheel base is very simple, the axle bearing the two wheels being unsprung, tyres of very large diameter absorbing the shock.

The second arrival was an Avro of much the same type as the military two-seater, but fitted with a Gnome engine. This machine is the first of those built to the order of the War Office.

### Liverpool Aviation School (Waterloo, near Liverpool).

ON Wednesday, the 24th, Hardman was out on the Anzani-Blériot in a strong wind, and succeeded in making two nice flights of about 300 yards each. Birch also out and rolled well. Next day Fenwick, of Planes, Ltd., arrived in the morning from Freshfield, via the air, and returned after a short interval, thereby winning a champagne dinner promised by Mr. Melly on the first occasion he crossed the River Alt. In the evening, Hardman was making short straight flights in a strong east wind. Birch also put in some practice rolling.

Saturday morning, Hardman had more practice at short straight flights in a bad wind, and Birch succeeded in leaving the ground five times.

On Sunday morning, notwithstanding a nasty east wind, Hardman was again doing straights, and Birch made several successful hops.

In the evening, on Tuesday, in perfect weather, Hardman made several straight flights of over half a mile, finishing with a complete half circle, keeping the machine in the air for 80 secs. Birch made a series of successful hops, some of which were over 100 yards in extent.

**London Aerodrome, Collindale Avenue, Hendon.**

**Grahame-White School.**—Thursday last week the wind was gusty all day, consequently not much work was possible. In the evening Mr. Lewis Turner took out biplane No. 5 for test flight, previous to Mr. Grahame-White giving a passenger trip to Lady Shelley and her husband.

Next day Mr. C. Grahame-White was out testing the Baby biplane after repairs and finding that the elevator still needed adjustment the machine was returned to works.

Mr. Hucks was out on Saturday morning making circuits and a cross-country flight on monoplane No. 6. The afternoon was devoted to the Second Spring Meeting, which is fully dealt with elsewhere.

**Blériot School.**—At the Blériot School last week, the only day on which the wind permitted any school work to be done was Monday, on which day Messrs. Thomsen and Pothet put in a small amount of practice. The latter flew a couple of circuits in good style, but the former only managed to get one straight before the wind rose.

M. Henri Salmet, the school instructor, is anxiously awaiting the return from Paris of his 50-h.p. Gnome-Blériot, which suffered from his abrupt landing in Essex on his return from his London-Paris-London flight. The monoplane is due to arrive at Hendon early this week, and M. Salmet can be relied upon to put up some more of his excellent exhibitions at an early date.

**W. H. Ewen School.**—During the whole of the past week a strong N.E. wind has been blowing and there has not been a single opportunity for getting in any school flying. The pupils at the school, however, have been patiently and profitably occupying their time in the hangars. On Thursday Mr. Dyott, home from America, called to inspect the Caudron and notwithstanding there was a wind of 25-30 m.p.h. blowing, Ewen took up the new biplane to about 500 ft. and gave a very fine exhibition. Captain J. A. Chamier joined the school on Friday and took his first instruction.

**Salisbury Plain.**

**Bristol School.**—Notwithstanding the glorious sunshine of the past week, flying has been to a certain extent curtailed owing to the strong gusty winds. The best work of the week was done on Monday. Jullerot was out at 5 a.m. making a trial flight, afterwards taking Jennings and Lieut. Cordner for tuition. Gordon England was on one of the tractor biplanes flying with a mechanic as passenger. He made a couple of circuits, landing splendidly.



Mr. Fielding, another pilot who has just obtained his *brevet* on a Bristol biplane at Brooklands.

Mr. Smith-Barry set out for rolling practice on a single-seater monoplane, after which he went for a trip on biplane No. 66. A good solo was made by Antonini on the Bristol two-seater monoplane whilst Lieuts. Ercole and Rinaldi got in some rolling practice on the single-seaters. Gordon England was then up for a solo on No. 55, Jullerot afterwards ascending on this same machine for a short flight. This completed the morning's work.

Several trials were made during the afternoon, Mr. Pixton flying a couple of circuits with Lieut. Hartraa as passenger, but the wind had risen and it was considered too strong for pupils flying. At 6 o'clock and again at 6.30 trials were made, but it was not until after 7 that any improvement was noticed, Jullerot and Bendall were out but darkness prevented anything else.

No flying was possible on Tuesday, Wednesday and Thursday on account of the strong winds. However, the opportunity was taken to tune up the motors and adjust the machines and some very useful as well as instructive work was got through.

Friday was decidedly an improvement upon the previous days, and the Bristol staff were out at a very early hour. After a trial flight Jullerot ascended with Lieuts. Wall, Gallaher and Hartraa for tuition, Bendall taking Mr. Lindsay Campbell, the latter having just joined the school. Mr. Pixton put up a good flight on one of the Bristol monoplanes fitted with a 70-h.p. motor, Mr. Smith-Barry accompanying him as passenger. At the same time Lieut. Antonini was up with Lieut. Ercole on one of the school monoplanes and carried out two good flights, whilst Lieut. Rinaldi was getting in some useful rolling practice followed by Lieuts. Wyness-Stuart and Ercole. Lieut. Hartraa set out for his first solo on No. 43 remaining up for 20 minutes at an altitude of 600 ft. Work was then abandoned for the day.

Saturday was spoilt by a gusty wind which prevented any school work. In the evening Messrs. Pixton, Gordon England, Jullerot and Bendall made solos, but this was all the flying done. No improvement had taken place Sunday and nothing was doing all day.

The weather was certainly better Monday, and quite early Jullerot took Mr. Pickles, a recent recruit, for two flights, Bendall having Mr. Campbell. Messrs. Jennings and Smith-Barry each made solos on one of the tractor machines, Lieut. Wyness-Stuart putting in some rolling practice on a single-seater followed by Mr. Smith-Barry.

Lieut. Antonini carried out a very successful cross-country flight on one of the Bristol two-seater monoplanes. With Lieut. Ercole as passenger he quickly reached a good height and then set off in the direction of Shrewton, making a wide circuit taking in Bulford and Salisbury, eventually arriving back at the hangars, landing with



Lieut. Longcroft, an old pupil of the Bristol School, at the control of one of that school's biplanes.





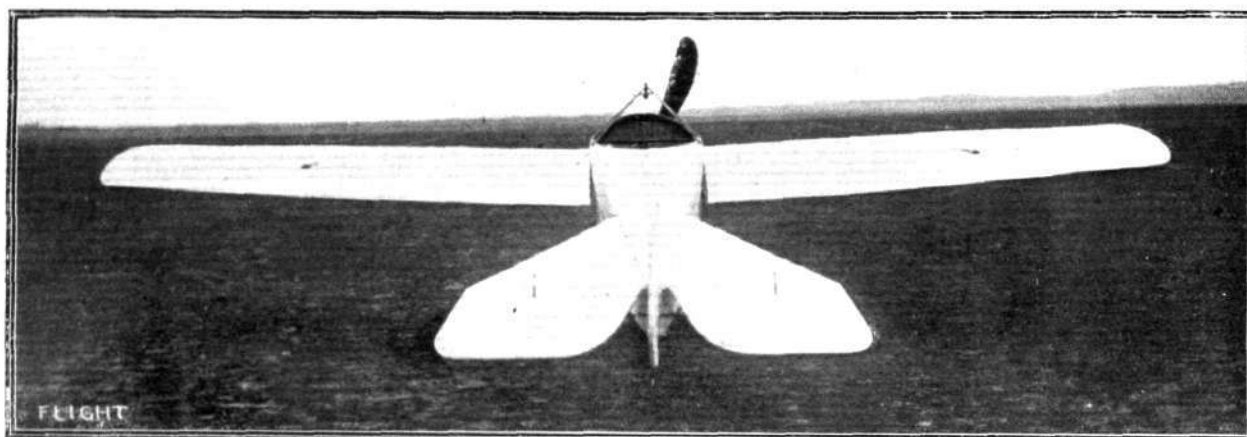
The latest Hanriot monoplane which is now being constructed in England under the guidance of Mr. Maurice Ducrocq. Side view, showing the rakish lines of this fast machine.

a perfect *vol plané* from 100 ft. Lieut. Antonini has now finished his tuition at the Bristol School and has gone back to Italy.

**Royal Flying Corps.**—The changeable weather is responsible for the fact that there is very little to report as to the work of the past week. On Wednesday last week, Lieut. Hynes was out on the Breguet "B 3," putting in a little scouting practice, and Vickers monoplane was packed up and returned to the works for some

alterations to be made, after which it will be back again for further testing.

Lieut. Hynes was also on "B 3" on Thursday, when Capt. Fulton was out several times on "F 4," and Lieut. Conner put in some rolling practice on the Anzani-Blériot. These same officers were also at work on Friday, with the addition of Lieut. Reynol, who, on his two-seater monoplane, went up to a height of 300 ft.



View, from behind, of the latest Hanriot speed monoplane.

## THE IRISH SEA FLIGHT.

MR. VIVIAN HEWITT is to be congratulated upon his excellent flight across the Irish Sea on Friday last, when his exact time from taking off at Holyhead until his landing in Phoenix Park, near the Hibernian Monument, was 1 hr. 15 min. Mr. Hewitt wisely guarded against undue risks by providing himself with a safety belt, &c., in case he should fall short of his destination. Again one further record has been established in regard to crossing the open sea, this following on last week's announcement of St. George's Channel being flown by Mr. Corbett Wilson. This week we give Mr. Vivian Hewitt's portrait as a "Flight Pioneer" and the following is Mr. Hewitt's own version of his trip and the days preceding the actual flight:—

"I started from Rhyl at 5 a.m. last Sunday morning and flew off over the sea in the direction of Holyhead. After rounding the Great Orme at Llandudno I made for a point of land running out to sea. I could see Holyhead Harbour by this time, but the wind started blowing half a gale and I found it impossible to get there. I was up an enormous height, and could distinctly see over Snowdon. The wind blew me right down the coast and I had to put the nose of the machine down and let my engine out, otherwise I should have been blown out to sea. I landed eventually at a place called Plas, in Anglesey, at 6.20. I felt very sick, as I had been tossed about all over the place. The machine was roped down and next day I started for Holyhead at 9.30 and landed in Lord Sheffield's grounds

20 minutes later, it being out of the question to attempt flying the Channel owing to a dense fog. From Monday till Friday morning I was held up at Holyhead owing to wind which was blowing at about 35 miles an hour in the wrong direction. On Friday morning I started off at 10.30. There was a good deal of wind at the time and a lot of haze, and when I passed the Stack I was blown down Channel about 5 miles. I managed to work into it, however, and got my true course from the breakwater. I lost sight of land after ten minutes and about five minutes after I sighted the Mail Packet coming from Kingstown. I passed right over her from stem to stern and lost her smoke about three minutes after in the haze. Although all the boats had been informed, and the Mail Packet was looking out for me, they never saw a thing, showing what a great height I was.

"After leaving the Packet I saw nothing more for fifty minutes, and steered by the sun whenever I could. I ran into dense banks of fog, and at times I could not see the wing tips. After about fifty minutes I saw the Wicklow Mountains, and passed over Kingstown Harbour very high up. I passed over Dublin about 2,000 ft. up, and when planing down experienced the worst air-currents that I have ever come across. I was all but upset twice, and the machine dropped 500 ft. I managed to land safely in the 15 acres in Phoenix Park, and was treated very kindly by everyone. The machine I used was my 50 Gnome-Blériot."

### Gold Medals at Moscow Exhibition.

AMONG the gold medals distributed at the recent Moscow Exhibition, were those to the Deperdussin and Blériot firms, for their exhibits of monoplanes.

### More Entries for Pekin-Paris Race.

Two more entries have been sent in for the Pekin to Paris race, being a Hanriot entered by Andre Frey, and a Caudron biplane which Allard will fly.



# The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

## Committee Meeting.

A MEETING of the Committee was held on Tuesday, the 30th April, 1912, when there were present:—Sir Charles D. Rose, Bart., M.P., in the Chair, Mr. Griffith Brewer, Mr. G. B. Cockburn, Capt. J. D. B. Fulton, R.F.A., Prof. A. K. Huntington, Mr. F. K. McClean, Mr. J. T. C. Moore-Brabazon, Mr. Alec Ogilvie, Mr. C. F. Pollock, Mr. R. W. Wallace, K.C., and Harold E. Perrin, Secretary.

**New Members.**—The following new members were elected:—R. A. Chalmers, Lieut. E. F. Chinnery, Walter Emden, Albert Hardt, M. R. N. Jennings, W. J. McCormack, Mrs. Samson, Capt. A. H. Williamson and Lieut. A. Wyness-Stuart.

**Aviators' Certificates.**—The following Aviators' Certificates were granted:—

- 208. L. A. Tremlett (Blériot monoplane, Hendon).
- 209. Lieut. J. D. Mackworth (Bristol biplane, Brooklands).
- 210. Lieut. E. F. Chinnery (Deperdussin monoplane, Brooklands).
- 211. John R. Duigan (Avro biplane, Brooklands).
- 212. Lieut. H. C. Fielding, R.F.A. (Bristol biplane, Brooklands).
- 213. Major Sir A. Bannerman, Bart., R.E. (Bristol biplane, Brooklands).

**Aviators' Certificates.**—The request of the Aero Club of America for permission to issue an Aviator's Certificate to Mr. W. M. Stark, a British subject, was granted.

The request of the Aero Club de France for permission to issue an Aviator's Certificate to Mrs. W. Buller, a British subject, was granted.

**Aeronaut's Certificate.**—The following Aeronaut's Certificate was granted: 16. The Hon. Mrs. Assheton Harbord.

Mrs. Harbord is the first lady to obtain an Aeronaut's Certificate in this country.

**Appointment of Timekeeper.**—The following additional timekeeper was appointed for the year 1912: A. Deacon.

**Britannia Trophy for British Aeroplanes.**—Letter from Mr. H. Barber, kindly offering a Trophy for general efficiency of British aeroplanes, was read, and it was unanimously resolved that the Trophy be accepted, and a letter of thanks was ordered to be sent to Mr. H. Barber.

The question of the regulations governing this Trophy was referred to the Competitions Committee.

## Competitions Committee.

A meeting of the Competitions Committee was held on Tuesday, April 30th 1912, when there were present:—Col. H. C. L. Holden, C.B., F.R.S. (in the Chair), Mr. Ernest C. Bucknall, Mr. G. B. Cockburn, Capt. A. E. Davidson, R.E., Prof. A. K. Huntington, Major F. Lindsay Lloyd, Mr. F. K. McClean, Mr. Norman Clark Neill, Mr. Alec Ogilvie, Mr. E. V. Sassoon, and Harold E. Perrin, Secretary.

Col. H. C. L. Holden, C.B., F.R.S., was elected Chairman of the Committee.

The reports of the recent Flying Meetings at Hendon were received.

## THE ROLLS MEMORIAL AT DOVER.

THE remarkably lifelike statue of the late Hon. C. S. Rolls by Mrs. Scott, wife of the antarctic explorer, which has been erected on Dover Promenade to commemorate Mr. Rolls' double crossing of the channel from Dover to Calais and back, was unveiled by the Duke of Argyll on Saturday afternoon. Those present included Lady Llangattock (Mr. Rolls' mother), Lady Hood of Avalon, Sir John and Lady Shelley, Major General Ruck, R.E. (Aeronautical Society), Col. Capper, Mr. H. E. Perrin (Royal Aero Club), Sir William Crundall, the Deputy Mayor, Major General Inglefield, Commander Forster, R.M., Mr. Walter Emden, ex-Mayor of Dover, who originated the project, &c. After unveiling the statue, the Duke of Argyll congratulated Mrs. Scott on the manner in which she had portrayed his dear friend, Charles Rolls. He referred to the quiet reticence of the late Mr. Rolls and the modesty with which he carried out his pioneer work in connection with aviation. The Duke went on to refer to aeroplanes for the navy and army drawing attention to some of the difficulties, and suggesting that the Royal Aero Club might approach the Government with the suggestion that they should offer a prize for the best apparatus with a view to life saving in connection with aviation.

**NOTICE is hereby given** that a Special General Meeting of the Club will be held at 166, Piccadilly, London, W., on Tuesday, 14th day of May, 1912, at 4.30 p.m.

## AGENDA.

To elect Mr. Roger W. Wallace, K.C., a Vice-President of the Club.  
166, Piccadilly, London, W. By order of the Committee,  
4th May, 1912. H. E. PERRIN, Secretary.

## Naval and Military Aviation.

Col. Seely, the Under-Secretary of State for War, occupied the Chair at a meeting at the House of Commons on Tuesday last, and fully explained the Government's scheme for the creation of the Royal Flying Corps. The meeting was convened by the Royal Aero Club, and the Chairman of the Club, Sir Charles D. Rose, Bart., M.P., was supported by a large muster of aviators and members, including the following:—

C. R. Abbott, R. O. Abercromby, A. H. Aitken, H. Barber, Victor Barrington-Kennett, A. E. Berriman, A. V. Bettington, C. A. Bettington, H. Blackburn, B. G. Bouwens, Griffith Brewer, J. Clutton, G. B. Cockburn, S. P. Cockerell, S. F. Cody, H. Delacombe, M. Desoutter, Charles Edmonds, Hon. Maurice Egerton, F. B. Fowler, W. E. Gibson, C. Grahame-White, C. H. Greswell, C. G. Grey, S. Hedley, Col. H. C. L. Holden, C.B., F.R.S., B. C. Hucks, A. Hunter, Prof. A. K. Huntington, M. R. N. Jennings, J. H. Ledeboer, A. R. Low, F. K. McClean, Col. H. S. Massy, L. S. Metford, J. T. C. Moore-Brabazon, Alec Ogilvie, Mervyn O'Gorman, N. S. Percival, Henry Petre, C. P. Pizey, C. F. Pollock, Lieut. J. C. Porte, R.N., A. V. Ros, Major A. M. Rogers, E. V. Sassoon, S. V. Setti, S. V. Sippe, R. B. Slack, R. Smith-Barry, T. Sopwith, H. Spencer, P. Spencer, G. Holt Thomas, C. C. Turner, J. Valentine, Roger W. Wallace, K.C., H. Walter, W. E. de B. Whittaker, C. R. Winfield-Smith, B. G. Wood, Capt. H. F. Wood, Lieut. A. Wyness-Stuart, V. O. Yates, D. G. Young.

A report of the proceedings will be found on page 396 of this issue.

## Hurlingham Balloon Contests.

The following dates for balloon contests at Hurlingham have been fixed:—

Wednesday	...	...	June 12th, 1912.
Saturday	...	...	June 22nd, 1912.
Saturday	...	...	July 13th, 1912.

Members of the Royal Aero Club are admitted free on these dates on production of their membership cards.

## Royal Aero Club v. Royal Automobile Club Golf Match.

Arrangements are being made for a golf match between the Royal Automobile Club and the Royal Aero Club to be played early in June. Members of the Royal Aero Club wishing to take part are requested to send in their names and handicap to the secretary. The match will be played on handicaps.

166, Piccadilly. HAROLD E. PERRIN, Secretary.

## The British Aerial Fleet.

IN reply to questions in the House of Commons on Tuesday last, Col. Seely stated that no officers have yet been gazetted to the Royal Flying Corps, but there are now ten officers engaged on aeroplane work and ten officer flyers receiving instruction in observation from captive and free balloons and airships before undertaking similar work from aeroplanes. The aeroplanes in possession of the War Department are: One Farman biplane, four Bristol biplanes, one Blériot monoplane, one Breguet biplane, one Nieuport monoplane, one Deperdussin, one Bristol monoplane, two B.E. (factory types). In addition, there are under reconstruction in the factory: One Bristol biplane, one Paulhan, one Howard-Wright, and one Blériot.

## A Cross-Channel Service.

SOME particulars are to hand from France, of the project of the "Navigation" Aérienne for the establishment of a cross-Channel passenger service. It is stated that a start will be made in July, the aeroplanes being the two large Sloan bi-curve biplanes fitted with 100 h.p. Clerget engines. It is proposed that the aeroplanes, which will carry four or five passengers, shall start from Dover and Calais at a fixed time each morning, while on fine days should they be in demand, the machines will make several crossings.

## CONFERENCE AT THE HOUSE OF COMMONS ON NAVAL AND MILITARY AVIATION.

At the House of Commons on Tuesday of this week, Col. Seely, Under-Secretary of State for War, presided over a conference that was attended by the leading pilots and others interested in the development of aviation. The Royal Aero Club was instrumental in arranging the meeting and Sir Charles Rose, Chairman of the Club, therefore opened the proceedings by explaining to Col. Seely that those present had come to hear him discuss the Government's proposals with regard to aviation as outlined in the memorandum presented to both Houses of Parliament, full particulars of which have already been published in **FLIGHT**.

Col. Seely expressed his pleasure at the attendance of so many prominent men in the world of aviation, and said that while he was prepared to answer any questions he thought it might perhaps be better in the first instance to recapitulate the outstanding points of the memorandum and the Army Orders connected therewith by briefly reviewing the procedure to be followed by a hypothetical applicant for admission to the Royal Flying Corps. The first point, said Col. Seely, was to write to General Henderson at the War Office, London, giving the number of the pilot's Aero Club certificate and some particulars as to age, height, weight, &c. If accepted the candidate proceeded to the Central Flying School on Salisbury Plain as a probationary officer to undergo a course of progressive tuition in flying, and to receive various other instructions of which particulars were detailed in the memorandum. It was anticipated that this probationary period would last from two to three months, and in some cases, perhaps, even for less time than this, when the pilot was already an expert.

For learning to fly privately the applicant received £75, and on being confirmed as an officer of the Royal Flying Corps was given a further £40 outfit allowance. Having so qualified, the officer could elect for continuous service with the corps, and according to his inclination and the vacancies that offered, might be attached to the Naval Wing, the Military Wing, or the Central School. As a flying officer he received £1 a day, and his term of service was four years.

Replying to the question as to the prospects at the end of his term of service, Col. Seely remarked that he could make no promises. It was within the powers of the authorities to extend the term of service from year to year, but the calling was essentially a young man's job. Those who went in for it should look at it from the point of view of experience to be gained. Under the scheme no arrangements had been made or were contemplated by which officers would be pensioned after a long term of years because a long term of service was not contemplated, and it would be difficult to say what arrangements would be made if an exceptional case of this sort arose. While attached to the corps, however, officers would, as shown in the Army Order, be eligible for pensions if disabled in flight.

Those who did not elect for continuous service could join the first reserve, in which case they must put in an aggregate of nine hours flying during each quarter in order to qualify for the retaining fee of £50 per annum to which they were entitled. More precise regulations would probably be drawn up regarding the nature of the quarterly flights required, and in reply to a question, Col. Seely said he would consider the advisability of specifying a minimum altitude in connection with them. He explained that officers would be encouraged to use their own machines on such occasions, and that the State would repair damages free of charge. Flights would have to be made under observation, but as far as possible the convenience of officers would be studied, so that many of them would be able to fly at the aerodromes at which they were ordinarily engaged.

One thing, said Col. Seely, that must be very clearly borne in mind was the obligation that the officer assumed when joining the Royal Flying Corps. He must be prepared to serve the State in any part of the world in time of national emergency, and speaking of his own personal experience in the matter, Col. Seely said that he was convinced that it was proper not to attempt to limit the boundaries of service for an arm like the Flying Corps because the very nature of aviation was such as to set any arbitrary boundary at defiance. Col. Seely also emphasised the possible utility of aeroplanes in naval warfare, especially having regard to the increased speed of ships. Simple calculation, said Col. Seely, would show that the pilot flying at quite an ordinary altitude of 2,000 ft. would have within range 10,000 sq. miles of sea. To a sea power like ourselves it was impossible to estimate the enormous value that aeroplane observations might be for naval purposes, and for this reason alone it would be unwise to restrict the service of the Flying Corps to flights within the boundary line of our coast. A flying officer, therefore, whether in the first reserve or serving with the corps would have to be prepared to go anywhere in times of emergency.

In addition to the first reserve, there was also a second reserve, and Col. Seely thought that they would not at first pass officers into the second reserve unless they had first served in the first reserve. In the second reserve officers would be under no obligation to make flights other than in times of emergency, and they would receive no retaining fee. Everyone who held rank in the corps would be a person holding a practical certificate, and he hoped with special knowledge on the whole subject both at home and abroad. The Government were prepared to undertake the repair of a pilot's own machine if it was damaged in reasonable circumstances at the Central Flying School, and the machine would still remain the property of the pilot.

In conclusion, Col. Seely appealed to all present to do their utmost to make the scheme a success.

The point at issue in connection with the conference was solely the question of encouraging civilian flyers to become flying officers, and had nothing whatever directly to do on this occasion with the purchase of machines or the position of the British aeronautical industry. But when you come to look at it below the surface it is not difficult to realise that this question of personnel lies at the root of the whole subject of matériel in so far as the manufacturer of the latter seeks to find support for his industry from the Government's official interest in flying and things appertaining to flight.

Thus the sooner the Government has the men the sooner will they be able to get to work using up the machines, and the sooner will they require the British manufacturer to build others. It is to the manufacturer's interest, therefore, that everyone who can fly, including himself, should make application to join the Royal Flying Corps, which should for the moment be done by writing to General Henderson at the War Office. Those only who have Royal Aero Club certificates are eligible for immediate appointment to the corps, but others who wish to take up flying with the object of joining when proficient, should first ascertain if they will be eligible by writing to General Henderson now. It is an essential part of the scheme that all prospective officers should obtain their first certificate privately and at their own expense. Afterwards the War Office will pay him £75 on his appointment to the corps, in which he becomes a probationary officer until he has satisfactorily passed a general course of instruction at the Central Flying School on Salisbury Plain. Those who are already expert pilots can receive their additional training in reconnaissance, &c., by attachment to the Military Wing instead of going to Salisbury Plain, but one and all must qualify in the other arts that make flying useful in war before they can be confirmed in their appointments as flying officers. A full course at the Central Flying School is expected to last four months; when completed the flying officer may elect for continuous service or the reserve, according as he is free to give up his whole time to the work or not. The period of service in either case is four years, but in the reserve it is only necessary to fly for an aggregate of nine hours each quarter in order to qualify for the retainer of £50 per annum, whereas the continuous service is, of course, like any other commission in the Army, an all time job, having, however, in this case pay at the rate of £1 a day and upwards.

Now, inasmuch as flying is not an art that can be picked up week-ends, it may be said without prejudice that anyone who is in a position to learn to fly properly is also in a position to become an officer of the Royal Flying Corps.

It is a young man's job, of course, when regarded in the light of the future, but for the moment it is unlikely that age will be allowed to stand in the way of those already known to be unusually proficient at the flying art. Both now and in the future, however, a young man might do far worse than take his four years' service with the R.F.C. as a preliminary to the more serious business of life. Men of the class and stamp we have in mind when saying this, do just as dangerous work and with less purpose in their ordinary pursuit of pleasure, so they ought to meet with encouragement rather than opposition in the home. It is a vocation that should appeal to the Britisher with a full force; he pursues an occupation that he might have chosen in any case, and he serves his country into the bargain. Incidentally, he becomes an officer holding His Majesty's Commission, receives a not inconsiderable rate of pay, and walks out into the world at large having had the finest sort of apprenticeship that a man of his class could possibly serve. And, we would add that it is not alone to the scions of wealthy houses that this short term service with the Royal Flying Corps should appeal. England would be all the better for more men on the look out for experience of this sort instead of so many who start life in search of a pension and make no more than as much effort to "make good" as is required to get it.



## BRITISH NOTES OF THE WEEK.

### Mr. Hamel's Aeroplane Tours.

HAVING successfully accomplished the London to Paris flight with a lady passenger, Mr. Gustav Hamel during the last few days has made the double journey between France and England, and also attempted a journey to Biarritz. He left Issy on Thursday morning of last week, accompanied by Miss Trehawke Davies, with the intention of making a round trip to Brussels and London and back to Paris, but at Comprez, near Compiègne, he was brought down by slight trouble with his petrol tank. He decided to restart at 6 o'clock on the following morning, but abandoned the project of flying to Brussels, and determined to proceed straight to London. A call was made at Harelot at 9 o'clock, and, after a good rest, a start was made on the cross-Channel trip at half-past four. Half-an-hour later the Blériot monoplane was over Dover, heading for London, but the wind proved to be too trying. Consequently, it was decided to come down at Canterbury, and spend the night there.

After fulfilling some engagements during the week-end, which was the reason for his abandoning his Brussels trip, Mr. Hamel, with Miss Davies, set out once more from Canterbury, where he had left his machine, on Monday afternoon to return to France. Leaving Canterbury at 5.30 p.m., Dover was passed in about 20 minutes, while a splendid landing was made at Harelot at twelve minutes past six. Assisted by the wind the oversea journey was made in the record time of 12½ minutes. On Tuesday morning at 5 a.m. Mr. Hamel and Miss Davies were once more away bound for Biarritz, an entry having been made by Mr. Hamel for the Coupe Pommery. Beauvais was reached at 6.25, but at Antony, to the south-west of Paris, the wind was found to be too great to permit further progress.

### The Handicap at Brooklands.

BELOW will be found the entries for the cross-country handicap arranged to take place at Brooklands this afternoon (Saturday). The start is timed for 5.30 p.m., and the course will be five miles to the West of the Flying Ground, so allowing for the competitors to be in view all the time:—Jas. Valentine (Bristol monoplane), C. H. Pixton (Bristol monoplane), Mrs. H. B. Hewlett and G. Blondeau (Farman), Herbert Spencer (Spencer biplane), N. S. Percival (Percival biplane), W. B. R. Moorhouse (Blériot), Lieut. J. C. Porte (Deperdussin), L. Howard-Flanders (Flanders monoplane), T. O. M. Sopwith (Blériot), T. O. M. Sopwith (Burgess-Wright), A. V. Roe (Avro monoplane), M. Ducrocq (Hanriot monoplane), C. L. Pashley (Humber monoplane), C. P. Pizey (Bristol biplane), Captain Woods (Vickers monoplane).

### Forthcoming Events at Hendon.

APART from the May Meeting which is being held at Hendon to-day, regular week-end programmes have been arranged up to June 8th, when the first aerial Derby over a circular course of about 100 miles round London will be held for the *Daily Mail* Trophy. At Whitsuntide, there will be a three days meeting following on the lines of the successful Easter meeting. In addition to the fixtures definitely arranged, dates will be announced later for the Ladies' ✱ ✱ ✱ ✱

Aviation Meeting, Illuminated Night Flying, Military Aviation, Display and Parliamentary Day. The dates to be remembered just now are May 11th, Second May Meeting; May 18th, Summer Meeting; May 25th, Second London Aviation Meeting (three days); June 1st, June Meeting; June 8th, First Aerial Derby.

### Trophies to be Won at Hendon.

IN connection with the week-end meetings which are being so successfully held at the London Aerodrome, Hendon, quite a fine array of trophies have been presented to the Directors for competition. These include prizes offered by Mr. J. Norton Griffiths, Messrs. Mappin and Webb, the *Daily Mail*, the *Daily Mirror*, Mr. W. Teofani, Messrs. St. Ivel, Ltd., Mr. Cyril Maude, Mr. Seymour Hicks, Mr. Arthur Roberts.

### Wireless Telegraphy at Hendon.

A WIRELESS telegraphy station has just been fitted up at Hendon by Messrs. A. W. Gamage, Ltd. A transmitter was fixed on Mr. Valentine's monoplane, while a receiving station has been installed at that flyer's hangar. We understand that Mr. Valentine successfully transmitted some messages while in flight on Sunday last.

### Mr. H. Barber ready for Consultation.

MR. H. BARBER, we are glad to hear, has now finally arranged to remain in the aeronautical world, as we recently announced he hoped to, as a consulting aeronautical engineer. His offices will be in the vicinity of St. James' Street. Mr. Barber's services, with his very remarkable experience not only as a designer but also as a constructor and pilot, dating back some years, should be an invaluable asset for constructors to be able to call upon. Having no trade interests to interfere, his work will be purely professional, and we understand that he will be prepared to undertake designs and drawings and, if necessary, supervise actual construction. Besides other important firms, he has already been retained in connection with the building of the Henry and Maurice Farman machines in this country, building operations being likely to commence this month. Considerable time, money, and wasted effort will be saved by inventors and experimenters by short consultation with a man of Mr. Barber's experience, as, to be able to detect what has been tried time after time and found wanting, is about the most valuable information that can be obtained prior to the laying out of money on innovations. We wish Mr. Barber every success in his new departure. He is retaining as his chief assistant Mr. C. W. Harris, late works manager to the A.S.L.

### A Fine Flight on a Caudron.

THE other day Mr. Ramsay was at the Caudron headquarters at Rue on business for Mr. W. H. Ewen, and was taken for an hour's trip on the Caudron racing biplane by Rene Caudron. There was a 35-mile wind blowing at the time. The flight was concluded by a fine *vol plané*, with the engine stopped, from a height of 1,500 feet over the sea, a landing being effected about 10 yards from the water's edge. By the way, Dyott was an interested spectator of this flight, and manifested great interest in the new monoplane. ✱ ✱ ✱ ✱

## FOREIGN AVIATION NEWS.

### The Coupe Pommery Competition.

DURING the last days of last week several flyers were busy, either preparing or making attempts for the Coupe Pommery, which will be awarded for the longest flight in a straight line, starting from a point in France, the third half-yearly section of which closed on the 30th ult.

On the 25th ult., Prevost on his Deperdussin went from Issy to Villacoublay, and later in the afternoon started for Nancy, but landed in a cemetery at Vitry-le-Francois, and did not reach Nancy until the 27th. Also, on the 25th, Vedrines went from Villacoublay to Douai to prepare for his trip to Spain.

Brindejone des Moulinais on the following morning set out from Villacoublay to fly as far as possible in a southerly direction. He made one stop at Poitiers and then went on to Angoulême, where, in landing, one of the wheels of his Morane monoplane was buckled, and as repairs could not be completed in time he decided to go back and make a fresh start.

First place was eventually secured by a comparatively unknown pilot, Bedel, who, on a Morane monoplane, on the last day of the month, made the journey between Villacoublay and Biarritz. He started at 4.51 a.m., and at 6.20 landed at Larcay, 11 kiloms. from Tours. After filling up he restarted at 7.2, and reached Angoulême at 8.25. Leaving again at 9.10, the next stop was at Bordeaux, where

he complained very much of the cold. He did not go on until 4.34, and landed at Biarritz at 5.45 p.m.

On the same day Prevost, with M. Besnard, went from Nancy to Sables d'Olonne, in the Bay of Biscay, a trip of 650 kiloms.

### Flying Round Paris.

AT last the Cup offered by M. Deutsche de la Meurthe in 1906 for a flight of 200 miles round Paris, touching at St. Germain, Senlis, Meaux, and Melun, is being competed for. The first attempt was made on the 25th by Frey on his Hanriot, but starting from Issy he only got as far as Meaux, where he had to come down through trouble with his petrol supply. He returned at once to Issy, to prepare for another try. On the morning of the 28th Tabuteau, starting from Villacoublay, successfully made the round in 1h. 47m. 48s., his average speed working out to 112 kiloms. an hour. It is a condition attaching to the Cup that no one can claim it unless they improve on the previous holder's time by ten per cent. On Saturday evening Helen decided to have a try, also starting from Villacoublay as Tabuteau had done. He, however, could not do better than 1 hour 39 mins., which works out to a speed of 121 kilometres an hour, not quite sufficient to secure possession of the Trophy. He will, however, make another attempt shortly.

## Henry Farman Testing His Monoplane.

By the practical way in which he tests his own machines, Mr. Henry Farman sets a splendid example to other constructors, both at home and abroad. We have already referred to some of the tests he has made with his new monoplane, and in our last week's issue mention was made of one long cross-country trip he had accomplished. On Tuesday of last week he again started from Chalons, still accompanied by his faithful foreman De Ram, and with a load of 220 kilogs., he covered the 200 kiloms. (125 miles) in an hour and a half, the speed being about 130 k.p.h. On the next day he returned to Chalons, and then changing over to the new small two-seated biplane, made several circuits of the flying ground, and again taking De Ram with him went over to Compiègne, the machine being little troubled by the 30-mile-an-hour wind. They afterwards went on to Beauvais, where they had lunch, subsequent to which they continued their journey to Buc, where they finished the 187 mile trip at half-past seven in the evening. This new biplane is fitted with an improved landing chassis, which considerably facilitates observations being made of the country below.

## A Fast Trip.

ON a Blériot monoplane, on the 25th ult., Beard flew from Plaisance to Eauze, covering the 40 kiloms. in 17 mins. He landed at the Labarthe aerodrome after a fine flight of 25 mins. above the town.

## Nieuport Monoplanes for Spanish Army.

AT Madrid, on the 25th ult., Weymann received several Nieuport monoplanes for the Spanish army, and tested them in the presence of the military officers. He flew several times over Madrid, on one occasion taking Colonel Vivez-y-Vich as a passenger.

## Capt. Gerrard leaves Pau.

AFTER spending a little under a fortnight at the Nieuport school at Pau studying these machines, Capt. Gerrard, R.M.L.I., who will have charge of the Navy's 50-h.p. Gnome-Nieuport, left on the 25th ult. on his way home.

## Weight-Lifting on a Sanchez-Besa.

AT Issy, on the 26th ult., Colliex was testing a Sanchez-Besa biplane, and made several flights with a load of 420 kilogs. The landing of the machine each time was particularly good.

## Two Good Cross-Country Flights.

ON the 26th ult., Grazioli and Senart left Issy on their Blériot monoplanes, which are fitted with the new six-cylinder 50-60-h.p. Anzani engines. In accordance with his arrangements, Grazioli landed at Orleans, while Senart came down at Sens, in the Yonne district, having covered 120 kiloms. in a straight line. His distance must have been considerably more than this, however, as he had to manoeuvre a good deal above the forest of Fontainebleau in order to avoid the remous. Grazioli returned to Issy on Monday.

## More Farman Military Pilots.

ON the 28th ult. Naval Lieut. Reynaud, on a Maurice Farman biplane made a second test for a superior certificate over a course from Buc to Bonneval and back.

## Further Entries for Grand Prix.

THREE further entries, carrying the total to seventeen, have been received for the Aero Club of France Grand Prix. No. 15 is a fourth Deperdussin, while Nos. 16 and 17 are Hanriot monoplanes.

The organisation at Angers is going ahead, and military engineers, with the aid of dynamite, have been removing the trees which are in the way. When finished, the clear ground at Avrille will be 600 metres wide by 1,500 metres long. Two courses will be arranged, one for starting and the other for arriving.

## A R.E.P. Superior Pilot.

ON the 24th ult., at Buc, Lieutenant Maurice, on his R.E.P. monoplane, made the third test for a superior certificate over a course embracing Buc, Chartres and Courville. He made his second test on the previous day when he was flying above Rambouillet, Chartres and St. Luthery, covering 160 kiloms. in 1 hour 40 mins.

## An Aeroplane Review at Mailly Camp.

ON Monday, M. Millerand, Minister of War, visited the Mailly Camp, and after the various officer-pilots had been presented to him inspected the seventeen machines at the camp. He also decorated Lieut. Chevreau and second Lieut. Menard with the Legion of Honour, and presented a military medal to Sapper Bregi.

## From Etampes to Mailly Camp.

ON the 30th ult., Commandant Felix and Lieuts. de la Morlaye and de Geyer d'Orth went on their Blériots from Etampes to Mailly Camp, the three aviators keeping their machines at a high altitude throughout the 175 kiloms. On arrival at Mailly the aviators were joined in the air by Capt. Echeman and Lieuts. de Rose, Chevreau and Lelievre, so that M. Millerand, Minister of War, who was reviewing troops at the time, had the experience of seeing seven Blériot machines in the air at one time.

## Long Flights on a Savary.

AT the Savary School at Chartres, Sergeant Penet has qualified for a superior certificate. He made his final test of an hour's flight on the 23rd ult. Frantz passed his first test two days later, his second on the following day, and completed the tests on the 25th. His course was from Chartres to Orleans and back, which was covered in 1 hour 45 mins., with the machine carrying 155 kilogs. of ballast.

## Flying to a Football Match.

HAVING an engagement to play in the football team of the 46th Artillery at Charleville, Lieut. Morel, on Monday, mounted his aeroplane and flew from Mourmelon to Charleville, taking an hour and ten minutes for the journey.

## A Hydro-Aeroplane Contest in Belgium.

FOLLOWING out a wish expressed by the Commission appointed by the Belgian Government to consider the question of utilizing aviation in the Congo district, the Belgian Aero Club is organising an international competition for hydro-aeroplanes to be held before the end of the summer.



Flugsport.

*Prince Henry of Prussia*

"A flying machine is neither an open grave nor a toy for children." Such is the expression to which Prince Henry of Prussia, certified aviator, has subscribed his signature as above for his portrait on the Euler biplane on which he qualified for his pilot's certificate.



### A Little Comedy at Cologne.

IN 1909 the military authorities of Cologne announced that they could not permit any balloonists or aviators to pass over the fortifications of Cologne. Last year the Aero Club of Cologne got these regulations modified to the extent that flights might be made if passengers were known to the authorities. The other day Werntgen took a passenger over the city, and accidentally forgot to notify his name to the Government, and this coming to the ears of the officials, they immediately ordered that no further flights were to be made. In consequence Werntgen has packed up and shifted his headquarters to Siegbourg, and the townspeople of Cologne, which has done a good deal to encourage aviation in Germany, are up in arms against the military. The latter, however, refuse to reconsider their decision, and a big protest meeting is to be held, and it is suggested that the matter shall be brought to the notice of the Emperor. It is stated that the danger of anyone seeing the fortifications is not serious, as they are of no great value; while, anyway, they may be seen by any ordinary pedestrian, cyclist or motorist.

### Over Part of the Pekin-Paris Course.

IN order to be present at the inauguration of the new Campanile at Venice, Giovanni Widner flew from Trieste to Venice on Sunday last. The distance is about 100 kiloms. as the crow flies, and it will form part of the course of the Paris-Pekin race.

### Bulgarian Army and Aviation.

The Bulgarian War Office having ordered some Blériot monoplanes, have sent Lieuts. Petroff, Topratchieff, and Bogdanoff to France to be instructed in the art of piloting the machines. Two non-commissioned officers have also been sent to undergo training as mechanicians.

### The Italian National Fund.

THE movement for presenting aeroplanes to the Italian Army is going ahead, one of the latest subscriptions being £800, from the Dowager Queen Margherita. A similar sum has been subscribed by Venice for a machine which will be named St. Mark and by Salerno for an aeroplane to bear the name of the town. The city of Turin has offered to provide an aeroplane and four hangars. The Minister of War has appointed a Committee to go into the question of starting a volunteer Air Corps.

### Gordon Bell at Constantinople.

ON Sunday last, Mr. Gordon Bell was at Constantinople and made a fine flight over the Turkish capital and also over the troops which were being reviewed. The flights were, of course, carried out

with a R.E.P. machine, several of which have been ordered by the Turkish Government in connection with their project for the establishment of an aerial corps. Starting from San Stefano, he followed the coast at a good height, passing over the Palace of Seven Towers, turning at Seraglio Point, and then along the Bosphorus. He returned to the Golden Horn, and so on to the Plain where the troops were being reviewed by the Sultan.

### New American Prizes.

A PRIZE of a thousand dollars has been offered by Mr. James Means, of Boston, Mass., to aviators using his patent control. Competitors will have to make three flights of not less than half an hour, one of not less than one hour, and one of not less than 90 minutes, and the winner will be the one who makes the longest duration in the last flight. A further prize of a thousand dollars is offered to manufacturers who teach ten pupils to fulfil the same conditions.



## AIRSHIP NEWS.

### The Japanese "Parseval."

THE "Parseval XIII," bought by the Japanese Government, made a trial trip on the 17th ult., sailing from Bitterfeld to Leipzig in an hour and a half. It afterwards returned to Bitterfeld, where it was further tested on the following day. With seven persons on board, including two Japanese officers, it attained a height of 1,200 metres.

### Spiess Dirigible Nearing Completion.

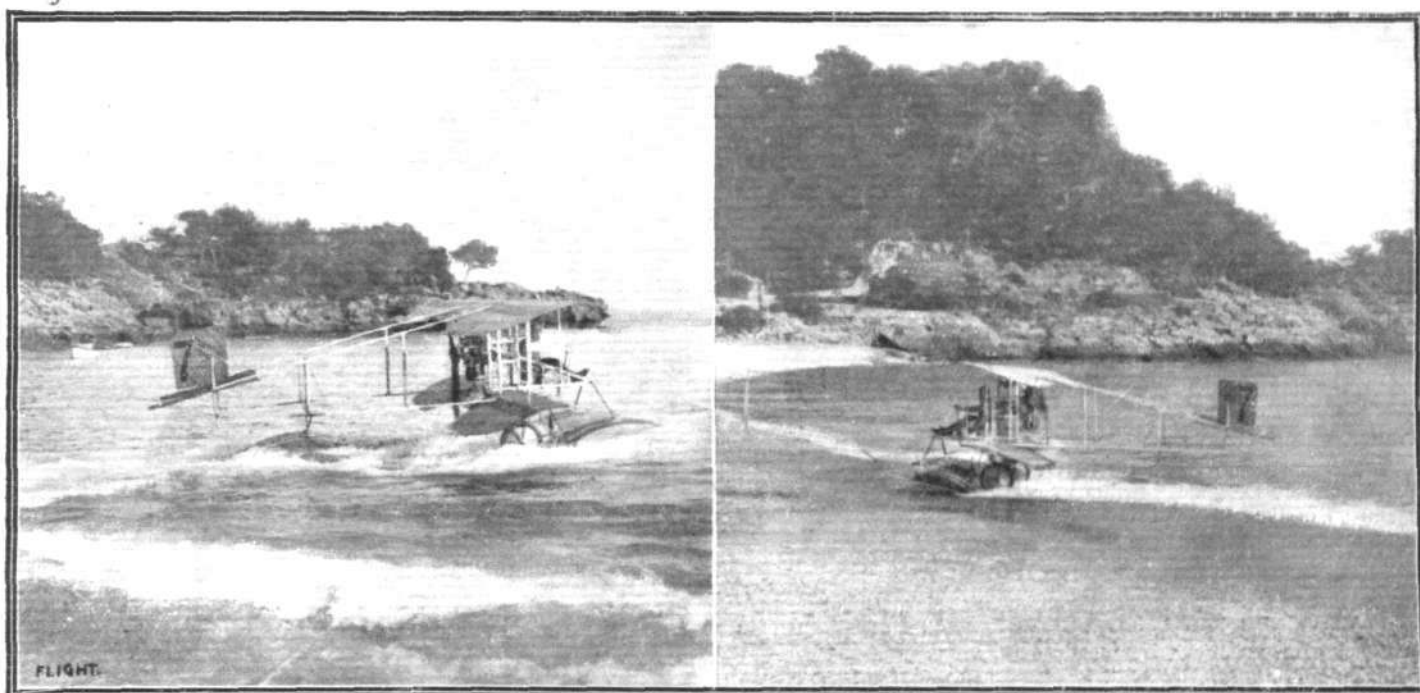
THE Spiess dirigible, which is of the rigid type, and is being presented by its designer to the French Government, has now been practically completed in the works of the Zodiac Company, and the motors are undergoing their tests before being installed. It is interesting to note that Mr. Spiess, accompanied by a French officer who specialises in dirigible work, recently paid a visit to Baden Baden, and had a trip of four hours on one of the Zeppelins.

### A Long Voyage by "Parseval."

ON the 26th ult., the "Parseval" airship left Halle at 3.45 a.m. and reached Johannisthal safely at 8.10.

### A New Zeppelin for German Army.

AT the Zeppelin Works at Friedrichshafen, last week, the first tests were carried out with a new Zeppelin dirigible "Z-XII," constructed for the German Army.



THE CAUDRON HYDRO-BIPLANE AT MONACO.—On the left she is entering the water. In France it is termed "a true aero-amphibian," for, by virtue of its combined wheel-and-float undercarriage, it can rise from and land on both land and water. On the right, the Caudron hydro-biplane landing after a flight. It is interesting that this machine requires no help other than that of its own engine to come back to land after running over the sea.

## THE ACCIDENT TO VEDRINES.



Vedrines, the great French flyer, whose unfortunate accident on Monday has once more laid him by the heels, in a characteristic attitude when on flying bent.

It came as a great shock to most followers of aviation on Monday to hear that Vedrines, the popular idol of France, had met with a serious accident. He had announced his intention of flying from Brussels to Madrid in one day, but as he incidentally wished to compete for the Coupe Pomeroy—for the longest flight in a straight line—and the condition for that cup calls for a start from French soil, he eventually decided to make a beginning from Douai. He intended to stop at Villacoublay, Poitiers, Bordeaux, Biarritz and Burgos, and starting from Douai at 5.15, he expressed the hope of being in the Spanish capital by 6 o'clock. He started off at a great speed from Douai, following the railway line to Paris. He was at a good height when passing St. Denis and St. Quentin, but when over Enghien at about a quarter past six, it was observed that his motor was not firing regularly. At Epinay he seemed to prepare to come down, but when a short distance from the ground, the aeroplane capsized and fell on to the railway line. A level crossing keeper at once notified the signalman, with the result that an express train which was practically due was stopped, while another train which just previously Vedrines had been racing pulled up just by the wreck. The aviator, who it was feared at first was dying, was placed in the train and taken to Paris to the Lari boisiere Hospital. There the doctors found that, although there were no bones broken, the injuries were so severe that it was feared at first there was no hope of recovery. Later bulletins, however, are slightly more hopeful.

As to the cause of the accident this is at present a mystery, but it is thought that in view of motor troubles Vedrines intended to land at Epinay, and it might be that he selected a landing place, but after not planing down and finding that it was a field of long grass, he tried to rise again. He then probably got into difficulties owing to his motor not re-starting, and he may have been caught by one of the telegraph wires bordering the railway. It is still hoped, however, that the aviator, by the skill of the doctors, will recover completely and then maybe the mystery will be cleared up.

It would appear that Vedrines' injuries might not have been so serious had he yielded to the advice of M. Deperdussin and worn a safety helmet, but he was so confident that he preferred to do without one.

Immediately on hearing of the accident, the French Minister of War, M. Millerand, put Vedrines' name forward for the Legion of Honour.



## AERONAUTICAL SOCIETY OF GREAT BRITAIN.

OFFICIAL NOTICES AS SUPPLIED BY THE SECRETARY.

Meeting next Wednesday at the Royal United Service Institution, Whitehall, 8.30 p.m. Lecturer, Brigadier-General Henderson. Chairman, General Sir John French.

**Election of Associate Fellows.**—The next election of Associate Fellows will be held in June next. The last day for the receipt of applications will be Tuesday, May 28th, and the result of the election will be declared on Wednesday, June 12th. Application forms may now be obtained from the Secretary, and it should be noted that it is not necessary that the applicants should be members of the Society.

**Election of Student.**—The following has been elected a Student of the Society:—J. C. Savage.

**Programme of Meetings.**—To be held at the Royal United Service Institution:—

May 8th, Wednesday, 8.30 p.m. Chairman, General Sir John

French, K.C.M.G. Brigadier-General D. Henderson, D.S.O. C.B., on the "Design of a Military Scouting Aeroplane."

May 16th, Thursday, 8.30 p.m. F. H. Bramwell on "National Physical Laboratory Research."

June 12th, Wednesday, 8.30 p.m. G. Holt Thomas on "Hydro-aeroplanes."

**Informal Meetings.**—Informal meetings for the discussion of set subjects are held at the Society's Offices, 11, Adam Street, Adelphi, on Mondays, from 5 p.m. May 6th, "Atmospherical Conditions at the Hendon Aerodrome." May 13th, "Double-Engined Aeroplanes."

**Subscriptions.**—Delay in the payment of subscriptions, which became due on January 1st, forms a serious handicap in the efficient conduct of the Society's work, and members who still have their subscriptions still outstanding are requested to forward the same at the earliest possible moment. T. O'B. HUBBARD, Secretary.



### General Henderson's Lecture.

WE remind our readers that General Henderson is to read a paper on the "Design of a Military Scouting Aeroplane" before the members of the aeronautical Society, next Wednesday evening. The meeting will take place as usual at 8.30 p.m., at the Royal United Service Institution in Whitehall, and General Sir John French will be in the chair. Having regard to the importance of the subject, the position that General Henderson holds in connection with the formation of the new flying corps, and the interest in high quarters that is implied by the presence of Sir John French, the occasion bids fair to be a repetition of the memorable evening a little while ago, when Colonel Seely, H.R.H. Prince Louis of Battenberg, Lieut.-General Sir Arthur Paget and others attended to hear Colonel Capper open a discussion on the military uses of the machine that General Henderson now proposes to treat from the point of view of design.

Constructors attended in full force on that occasion, and they

should certainly make a point of being present on Wednesday, as also should all those who have any purpose in improving their knowledge of the sort of machine that is really likely to serve army requirements. Of course, these discussions only permit of the expression of personal and unofficial views, but that is exactly the sort of assistance the designer requires, when the people expressing them have the subject so closely at heart, as is the case with those who have been taking part in the discussions on the military aeroplane at the Aeronautical Society's meetings.

### Flying Exhibitions at Plymouth.

ARRANGEMENTS have been made for Mr. J. Brereton, chief pilot, and Mr. H. Scott to give exhibition flights on Blackburn monoplanes at Chelson Meadow, the site of the Plymouth race-course, on Wednesday, Thursday and Saturday next. The flights are timed to start at 1.30 p.m. each day.



## EIFFEL.

## NOTES ON MR. HANDLEY PAGE'S LECTURE TO MEMBERS OF THE AERONAUTICAL SOCIETY.

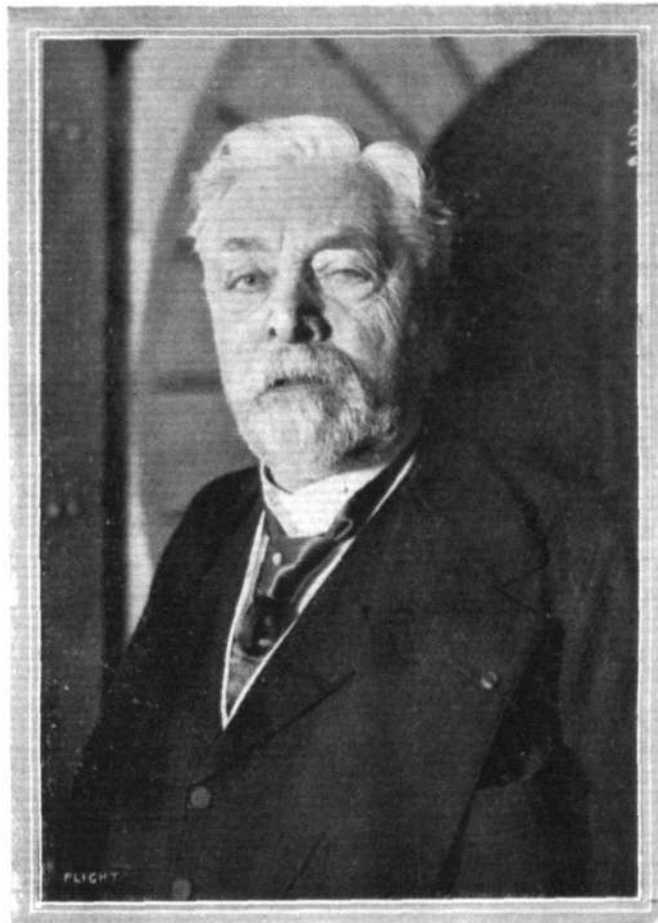
EIFFEL'S *Resistance de l'Air* is a modern aeronautical classic, the most modern and the most classic of the works that are at present available on this subject. It was, therefore, a most admirable undertaking on the part of the Aeronautical Society to get Mr. F. Handley Page to give a lecture on Eiffel's experiments, which he did with uncommon ability on the occasion of the Annual General Meeting of the Society, on March 27th.

To make an adequate *resumé* of a work like Eiffel's, it is necessary to select one particular point for discussion. Thus, Mr. Handley Page chose Eiffel's experiments on pressure distribution as the basis of his remarks, and he added to Eiffel's diagrams much analytical work of his own in order better to explain their practical utility.

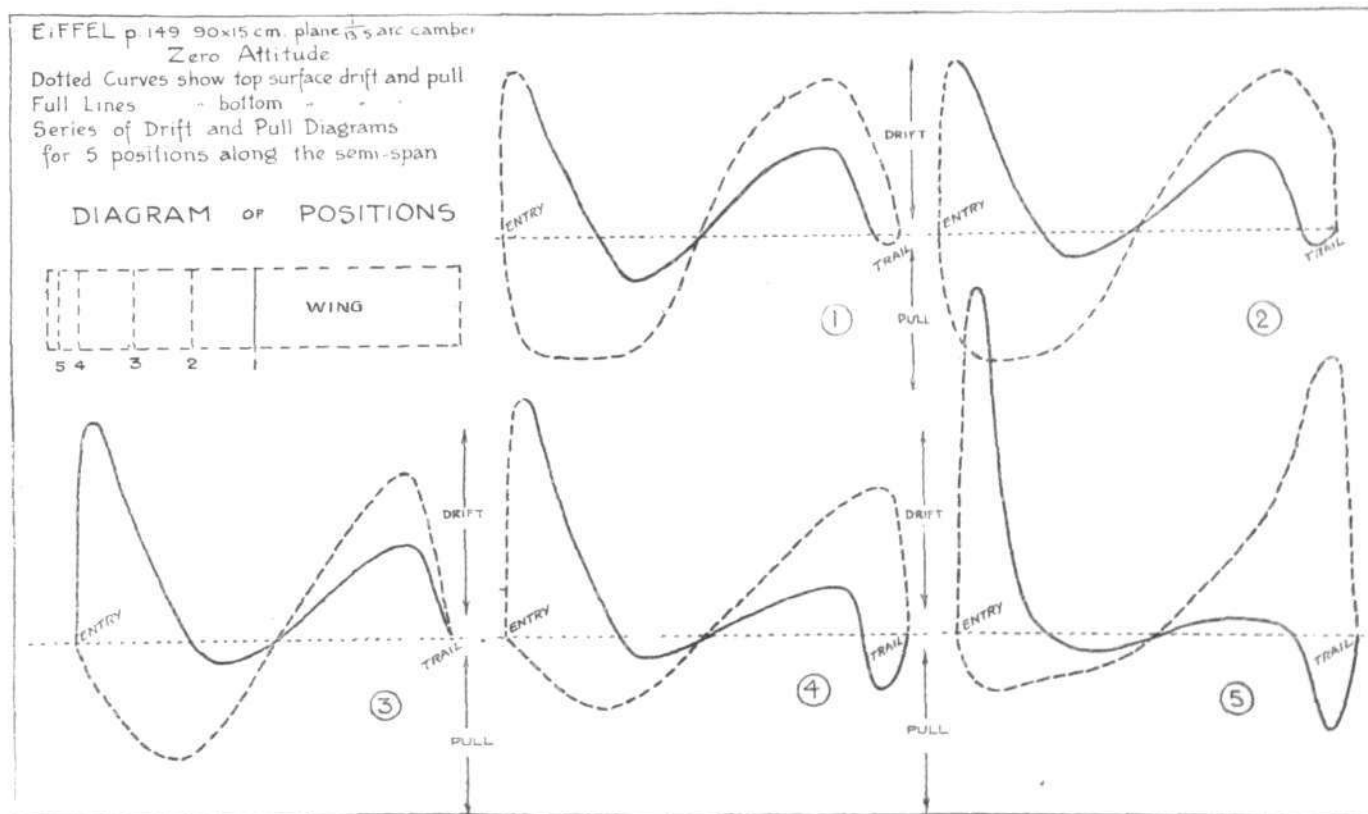
We show on another page a series of these pressure distribution curves, and they will be interesting even to students of Eiffel's book because we have replotted them on radial ordinates normal to the surface of the plane. It is Mr. Handley Page's opinion, also our own (and we believe that it has been confirmed by Eiffel himself), that the vertical ordinates as given in the book are incorrect. This is, therefore, the first time that the equivalent curves have been published on a proper basis. These curves show the static pressure on the surface of the plane at every point from entry to trail, both above and below the wing. They have certain remarkable characteristics that are worthy of the closest study, but for the benefit of those who are unfamiliar with the subject generally, it may be as well first to briefly explain their fundamental meaning.

In the middle of each diagram is the section of the plane to which it relates, the shaded areas above and below the plane indicate, respectively, the pressures on the upper and lower surfaces at each point from entry to trail. The pressures are the static pressures at the surface of the plane, and they are measured by the length of the ordinates drawn normal to the surface. In Eiffel's book these ordinates are drawn vertically, even for the curved planes, and it is in this respect that our own curves differ from those published by Eiffel.

Now the static pressure in the vicinity of the plane is the result of the aerodynamic reactions taking place in the region that the plane influences in its flight; that is to say it is an index to the rate of change of momentum that the plane imparts to a mass of air the three dimensions of which are defined by functions of the span, chord and sweep. The radial distance of the curve from the upper or lower surface of the plane indicates the magnitude of the local pressure at that point and, consequently, shows the efficacy of the



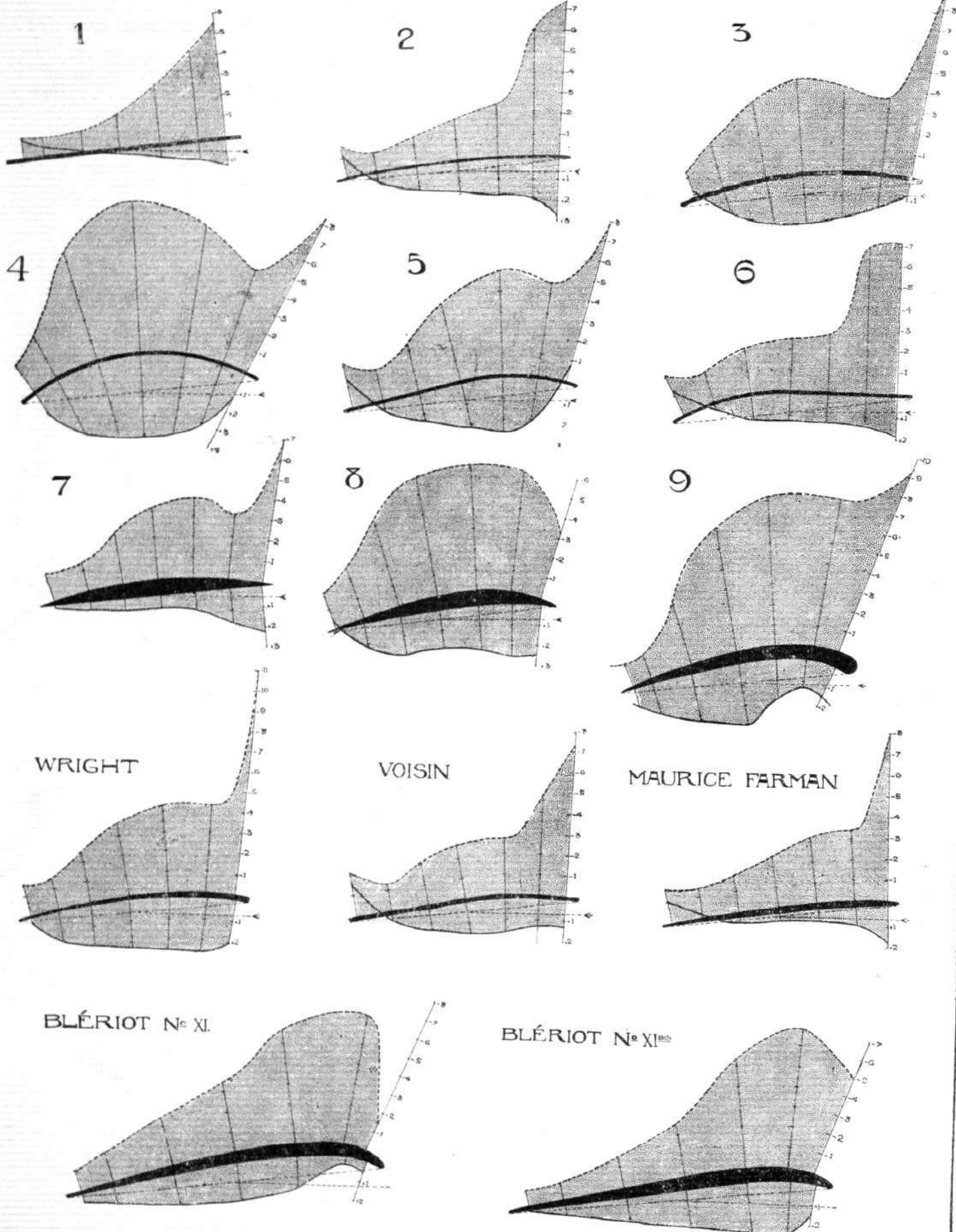
M. Eiffel.



Set of analytical diagrams showing drift and pull along the chord for five different positions along the semi-span. In another diagram, curves corresponding to these, but for  $10^\circ$  angle of incidence, are superimposed.

ANGLE OF INCIDENCE  $6^\circ$

← WIND



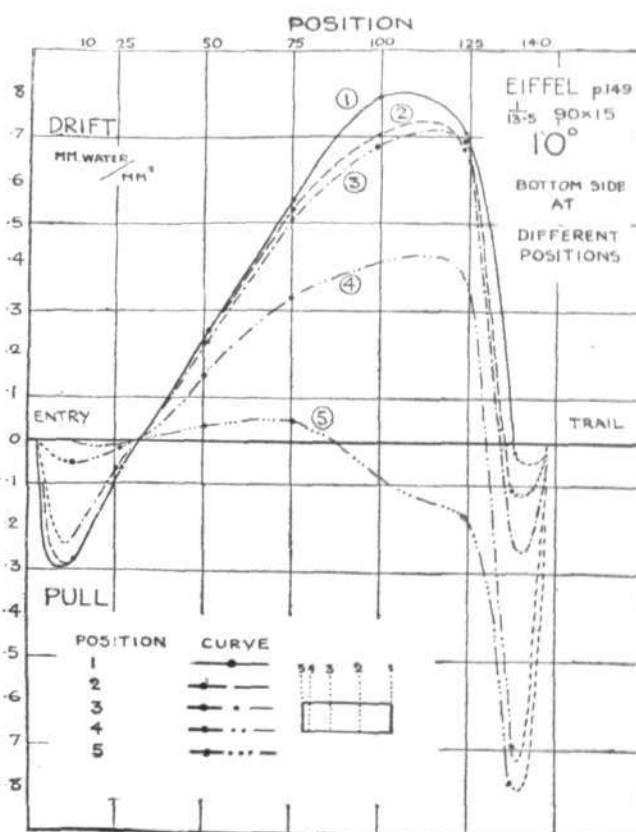
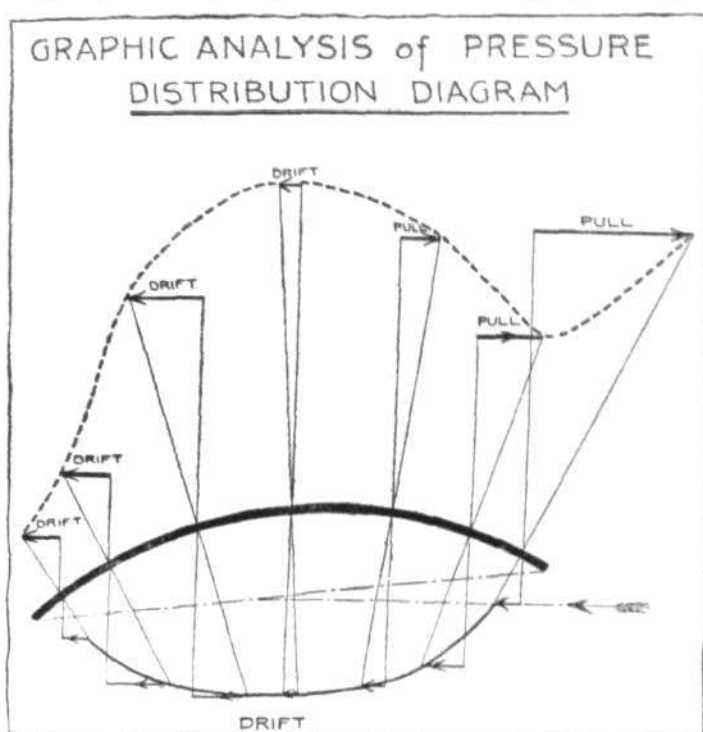
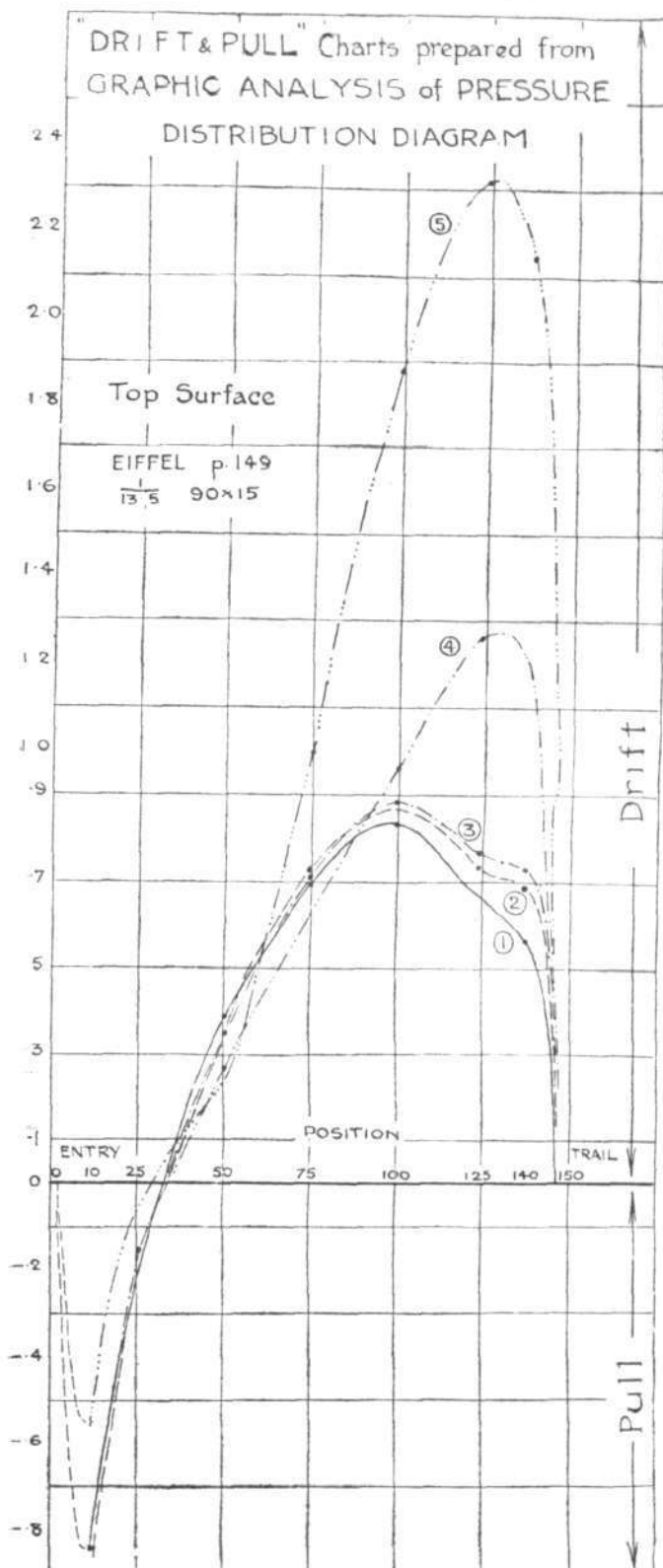
EIFFEL'S PRESSURE-DISTRIBUTION CURVES RE-PLOTTED WITH RADIAL ORDINATES.—In the centre of each diagram is the wing section, shown black. The shaded area above the section is negative pressure (suction), while the shaded area below the plane is positive pressure. The intensity at any point is measured by the length of the ordinates drawn normal to the surface. The attitude is constant for all sections, being  $6^\circ$  angle of incidence.



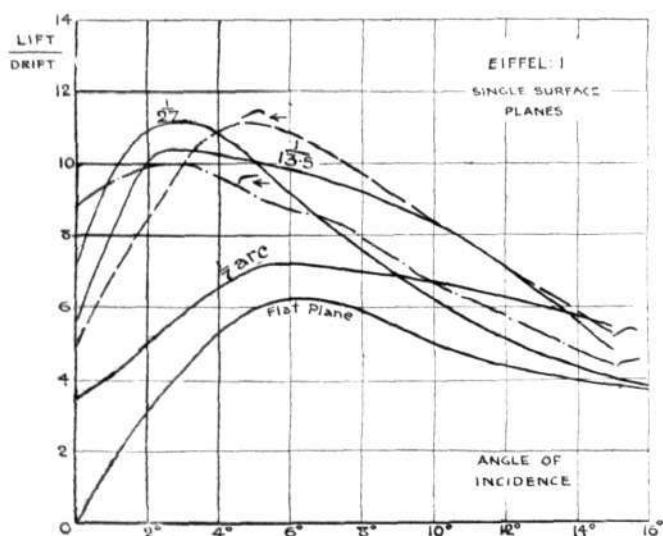
wing-camber in causing a deflection in the air stratum. When the radial distance of the curve from the plane is considerable, then the air stratum is being rapidly accelerated; when the distance is less, then the air stratum is not undergoing such a rapid change, and if it be found that the camber and attitude of the plane ought to have maintained the initial deflection, then any such falling off in pressure would be an indication that the camber is less effective at one part than another of the wing section.

In general, it will be observed that the trailing portion of the

wing section is less effective than the leading portion. By carefully comparing the pressure distribution curves with the cambers of the wings that produce them, Mr. Handley Page has been able to make some very interesting analyses, one of which is virtually what has just been stated, viz.: that if any of the sections were to be reconstructed so as to conform to the apparent air flow it would invariably have an exaggerated dipping front edge and a decreased angle of trail. In this connection it is interesting to observe that the very principle of the cyclic up-current, on which the dipping front edge is



Mr. Handley Page's analysis of Eiffel's pressure-distribution curves, showing the drift or pull (due to the slope of the pressure ordinates away from the vertical) at each point along the chord from entry to trail. Top and bottom surface effects are shown separately, and five different positions along the semi-span are compared. The diagram in the top right-hand corner shows the graphic analysis of a pressure-distribution curve from which the drift and pull ordinates are obtained to build up the charts.



founded necessitates the relative wind in the vicinity of the leading edge having a steeper angle of approach than the entry of the plane, no matter what the entry angle of the plane may be.

The next point that Mr. Handley Page investigated by means of these pressure distribution curves was the effective co-efficient of sweep. Thus, he obtained, in the first instance, a factor comprehending in one term the effective values of angle and sweep, which he proceeded to split up into two parts by estimating the effective angle of the plane by comparing the pressure distribution curve with the camber. As a result, Mr. Handley Page found that the effective co-efficient of sweep was less than unity, and in most cases more nearly in the order of '8 or '75. In other words, the evidence of Eiffel's experiments, as analysed by Mr. Handley Page, suggests that biplanes having a gap equal to the chord might with advantage be modified so as to reduce the gap to, say, three-quarters of the chord, since by doing so the lift would not be appreciably reduced, and the head resistance would certainly be considerably lowered, as also would be the weight of the various struts.

Another important and extremely interesting aspect of the pressure distribution curve is the indication that it gives of the nature of the head resistance experienced by a wing in flight. From the slope of the ordinates on which the pressure distribution curves are plotted, it will be noticed that the suction on the upper side of the leading edge of some of the sections produces a very marked forward pull instead of a head resistance. In other words, it contributes to the thrust instead of opposing it. Elsewhere, of course, the ordinates slope backwards and cause head resistance. The existence of a forward component in cambered sections has, of course, long been known, having been discovered by Lilienthal during the course of his own research; it was for some time called Lilienthal's tangential. Its visual reproduction by means of pressure distribution curves, however, affords the designer an admirable opportunity of studying the characteristics of cambered sections in detail, and enables him to modify the construction of his wing sections so as to produce a minimum of resistance coupled with a useful lift at a reasonable speed and a thickness of wing section that will afford adequate structural strength.

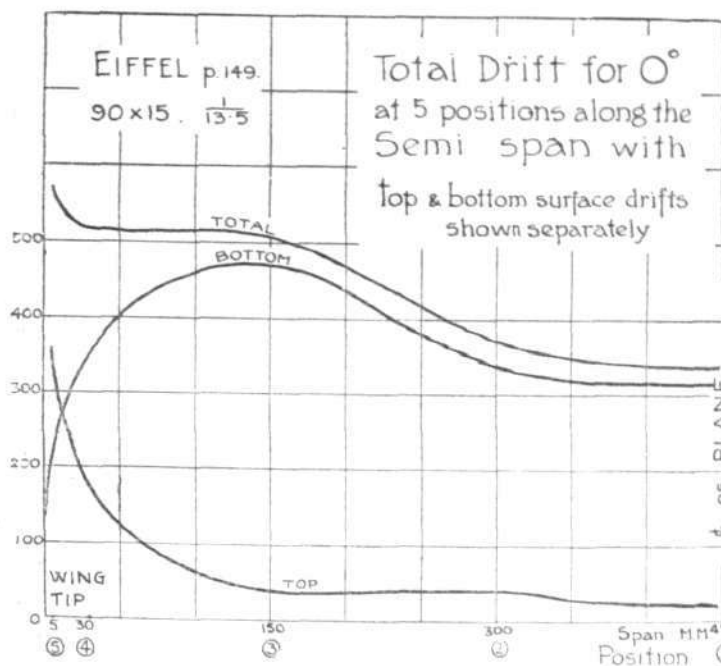
In order to investigate this aspect of the problem more closely, Mr. Handley Page prepared a series of further diagrams, by plotting the horizontal components derived from the pressure distribution curve along an axis corresponding to the chord of the wing. This has been done for five different positions along the span, from the centre of the wing to the tip, for Eiffel found that the character of the pressure distribution varied from point to point.

We reproduce two sets of Mr. Handley Page's diagrams relating to this subject, one set shows a separate diagram for each of the five sections, the other set shows all five positions superposed in one diagram. It is a matter of personal choice as to which method conveys the most to the individual reader, both are unquestionably useful ways of investigating the matter, especially when they are available for simultaneous reference as in this present instance. Having plotted these individual curves, Mr. Handley Page proceeded to combine them in a further diagram that indicates the variation in total head resistance from wing centre to wing tip along the span. This diagram also shows some very interesting characteristics, the most noticeable of which is the excessive rise in top surface resistance at the wing tip, thus indicating the advisability of "washing out" the plane at the wing tip by reducing its camber, or by other suitable means in order to avoid the creation of the conditions that give rise to this excessive head resistance.

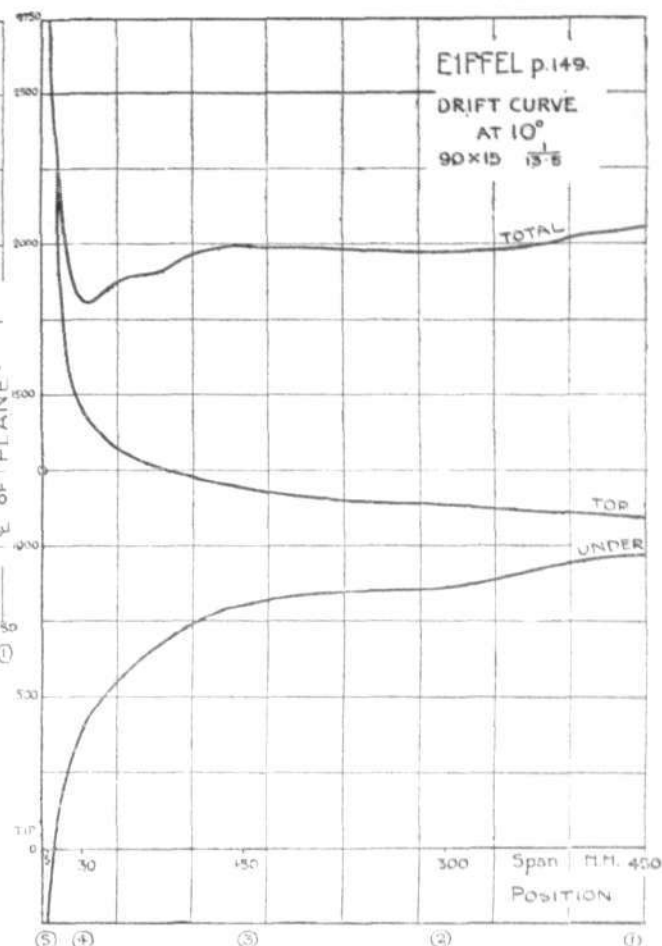
Having analyzed the subject thus far, Mr. H. Handley Page concluded his investigations by preparing diagrams illustrating the experimental results that have actually been obtained relating to the lift and drift of a variety of wing sections. These we also reproduce, and they serve to show the practical results that can be obtained by modifying individual elements of the wing section through a close study of the analytical diagrams already described. It will be noticed, for example, that some sections give a very high lift to drift ratio, but that the curve is peaked at this point and very rapidly falls away to values that are less than those obtained by other wing sections that do not reach such a high value. Also it will be observed that the highest values may only be obtained at very small angles of incidence, such as require very high flight speeds in order to support a practical loading. Thus, the wise designer will try for a wing section that maintains a fairly good lift to drift ratio throughout a moderate range of attitude, and, judging by the curves given herewith, a value somewhere in the order of 11 to 1 (lift to drift) represents the practical limit at present obtainable.

In making these analyses and especially in so lucidly reviewing Eiffel's work Mr. Handley Page has performed a valuable service to English students of aeronautics. We have necessarily omitted many of the steps by which Mr. Handley Page arrived at his results, and in particular the mathematical analysis of the sweep factor. It will





Mr. Handley Page's drift curves, showing the net total resistance at each of the five positions along the semi-span of the wing. These curves are obtained from the analysis curves showing the distribution of drift and pull along the chord. Attention is drawn to the excessive increase in resistance at the wing-tip due to top-surface drift in that position. Under-surface drift decreases at the tip, it will be noticed.



have been evident from the few remarks here given, however, that Mr. Handley Page's method of investigating the subject is essentially the same as that with which readers of FLIGHT have been made familiar in the line of elementary argument that has been maintained throughout the technical editorial articles in this journal, and is also

the basis of the theory underlying the little book, "Principles of Flight," wherein the same line of thought is more concisely embodied. To students, therefore, Mr. Handley Page's work, having as it has a distinct practical aspect, will come as a most welcome further step in their theoretical studies.



Gustav Hamel just off on his 50-h.p. Blériot for his great altitude flight.

# Models

Conducted by V. E. JOHNSON, M.A.

Replies to Queries, April 20th issue.

MR. C. IAN BURRELL writes as follows:—“(1) *Re* twin screws) This question is of comparative unimportance; however, should one propeller cease to revolve or drop off a model, with arrangement (a) it will make the better landing of the two owing to the reactionary forces of the remaining propeller helping to right the machine. (2) is of greater importance; to my mind neither arrangement is really satisfactory, for unless the wheels are placed a considerable distance from the C.G., uneven ground will tend to make system (1) tilt forwards (driving the nose into the ground), and system (2) backwards (causing the propellers to come into contact with the ground), in both cases bringing the machine to rest. To overcome this by placing the wheels a good distance from the C.G. too much weight is placed on the skid, and it will act as a serious drag. I have personally found that two wheels just in front of the C.G., combined with both and front rear skid, give a much better result than either system discussed so far, but I find three wheels give a still better result—two wheels some three or four inches in front of C.G. and the third under the propeller.” [Compare system shown in steam model illustration.]

Mr. W. H. Norton (Chairman Reigate and Redhill District Ae.C.) also writes: “The matter has been discussed by some of our members (*re* propellers). Personally, I think it is best they should revolve outwards on twin screw models, for we know that with a single screw the torque is the opposite way to which the propeller revolves; therefore if they revolve outwards on a twin screw model, it would tend to depress the back end of the machine and assist the elevation. But they have been tried revolving inwards, and really I see no difference in the results. On my own models I have them revolving outwards for convenience, as I have a duplex winder which winds from the apex of the triangular frame and it is handiest to wind thus. *Re* chasses, I prefer No. 1 drawing, as I believe it forms a straighter running on the ground and also a rear skid protects the propellers.”

Mr. P. C. Nosworthy, referring to the same matter, says: “In a twin screw model of 1-1-P<sup>2</sup>-0 type, if the ‘tops’ of the propellers revolve outwards, the propellers will, whether the machine is stationary or in motion, tend to lift the machine, my explanation being that the propeller ‘beat’ will act with the greatest force on the machine when the blade is farthest from the C.G. I arrived at this decision after testing a (1-1-P<sup>2</sup>-0) model having the propellers situated vertically above the other and revolving in opposite directions. I then found that the model circled in the direction in which the ‘top’ of the upper propeller revolved. It is therefore most efficient for the propellers to revolve outwards.”

(*Re* Query 2). Since a skid is more likely to stand a severe shock without derangement than the wheel chassis, it had better be placed

forward where the brunt of the landing shock has to be taken. Therefore figure 2 is the better combination.

(*Re* Query 3). The large disturbance in the water will be caused by the ducks using their webs as a break to their speed while alighting.

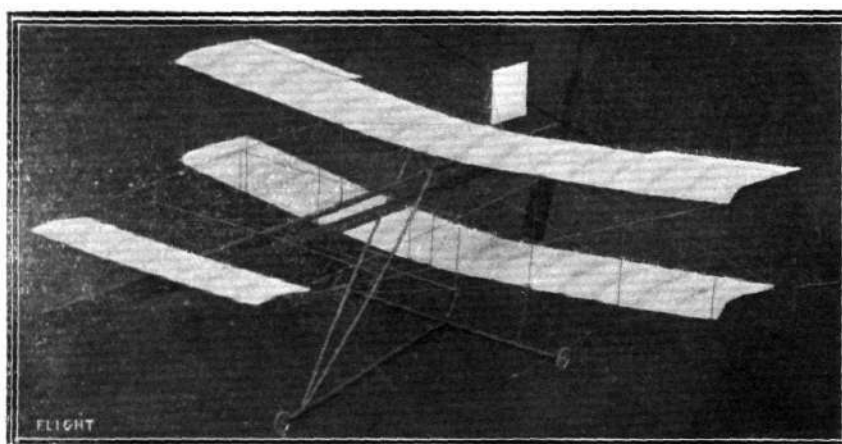
## Protectors.

Mr. W. E. Evans (Hon. Sec. Paddington and District Ae.C.) writes: “I entirely agree with your remarks in to-day’s FLIGHT *re* ‘protectors.’ You will have my cordial support in the matter, and I will bring it before my committee.” In a later communication we learn that the above club have made it a rule (to come into force after May 1st) that all members are forbidden to fly without protectors.

Mr. H. F. Holmon (Dover) writes: “I think your notes concerning protectors for model aeroplanes are quite appropriate and timely ones. Although I have never experienced the sensation of receiving a model aeroplane in the neck at about 25 m.p.h., I should certainly not like to, and I am sure that spectators at model ‘meets’ must be of the same opinion. I enclose a sketch of a protector I have just fitted to a 34-in. A-frame. It is made of two pieces of  $\frac{3}{16}$ -in. cane, and, as you remark, ‘serves the purpose of a skid quite admirably.’”

## The Gordon Jones Biplane.

We publish this week an illustration of a very interesting model—interesting for two especial reasons. In the first place it is a



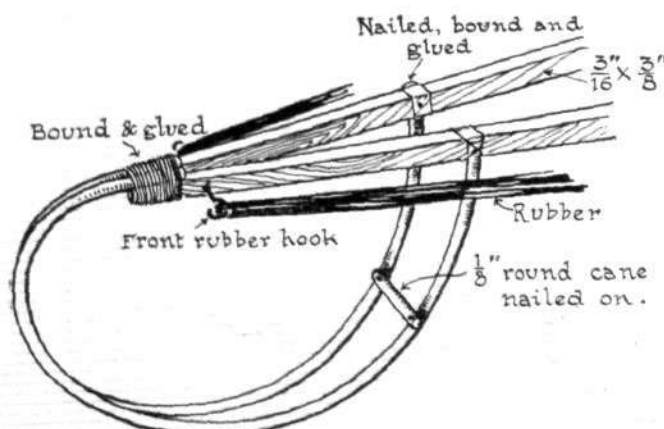
The Gordon Jones all-steel biplane.

biplane (which we would like to see far more in evidence), and in the second place it is built entirely of steel (silk surfaced), and is therefore, practically speaking, unbreakable. Steel, although so far as the average amateur is concerned, is possibly more difficult to work and manipulate than wood, but it does undoubtedly possess certain well-marked advantages over it. Amongst them one of the chief is a marked diminution in head resistance owing to the lessened sectional area of steel compared with that of wood of equal strength.

Mr. Gordon Jones is well known as a builder of models which have won medals and prizes both at Olympia aero shows and in open competitions. Undoubtedly, steel will be far more largely used in the model of the future than it has been in the past.

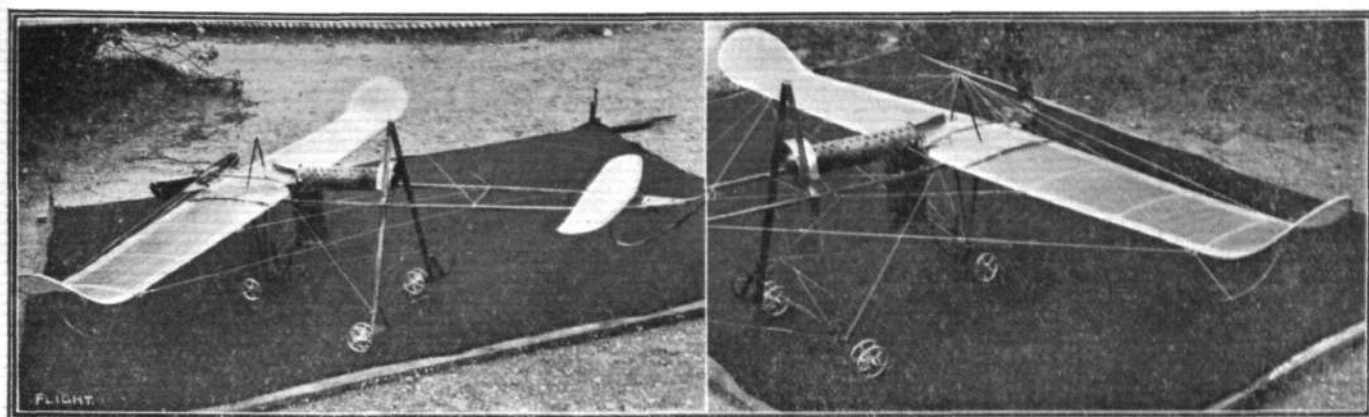
## Steam-Driven Model.

As will be seen from the two illustrations, we have completed the model to carry the steam plant made for us by Mr. H. H. Groves, and we are only awaiting the first favourable day to try the same in actual flight. The total weight of the model (without fuel) is 3-lbs. 1½-ozs. The C.G. is about 2 ins. in front of the main plane. The only difference made in the model since the photographs were taken is that the length of the elevator has been increased by two extensions of about 2 ins. each. The span of the model is 5 ft. 6 ins., the length 4 ft. 5 ins. It will be noticed the landing-chassis is of a decidedly novel character—being arranged, so far as possible, that the chief forces are in tension. The combined wheels and skids



Mr. H. F. Holman's sketch, showing model aeroplane protector.





Mr. V. E. Johnson's steam-driven model.

are all strong rubber-sprung. The large skid in front is of bamboo (doubly-sprung). The main plane is of magnalium tubing with brass sockets, single surfaced (Bragg-Smith silk). A sheet of aluminium is used in centre, and a "scoop" is used at rear of boiler to act as a guide to the flame of the lamp, which sometimes extends two or three inches beyond the propeller. So smoothly does the engine run that the model scarcely shakes at all—even with the propeller running 1,500 r.p.m. The model has been designed so as to offer but little head resistance, and should be very fast. The soaring speed (calculated) is 20 m.p.h. Total efficient lifting area about 4½ sq. ft. Total weight fully loaded, including fuel, 3½ lbs. The main plane has steel skids as protectors at its extremities. The wood used is ash, the wheels aluminium, and umbrella ribs U section have been employed in various places. The main plane is braced with no less than 16 wires and strainers, eight above and eight below, and so admits of a very nice adjustment. The elevator is so arranged that it can be knocked round without losing its angle of elevation (screw adjusted). Should the model prove successful in actual flight, more detailed particulars will be given later.

The propeller and general fittings have been supplied by Messrs. J. Bonn and Co., the silk (for surfacing the planes) by Mr. G. P.

Bragg-Smith, who has for some time now made a speciality of such.

#### Model Club Wanted for Lewes.

A. E. Hoadley (41, New Road, Lewes) writes stating that there are plenty of enthusiasts in the above districts, and that a club is badly needed there. Will those interested please communicate?

#### Replies in Brief.

M. L. ROLFE.—Thanks for communication and photos, which we shall be pleased to use in due course.

C. IAN BURRELL.—We think the skid and protector of your tractor model as per photos excellent, and will reproduce shortly. It is almost precisely similar to one we had devised, but the placing of the vertical chassis in front of the propellers is a decided advantage.

A. E. HOADLEY.—Consult the *Model Engineer*, Sept. 14th, 1911, or "Flying and Some of Its Mysteries."

#### Query.

B. F. PHISSEY.—What gauge of piano wire would you recommend for a plane 28 ins. by 6 ins., having six ribs?

## THE KITE AND MODEL AEROPLANE ASSOCIATION.

### OFFICIAL NOTICES.

**Registration of Model Performances.**—The trials fixed for Saturday, May 11th, have been cancelled. These were (at the invitation of the Blackheath Aero Club) to have been held on their ground, which has been temporarily closed, and they hope that we shall decide to hold a trial on their ground when re-opened.

The next trials will therefore take place on June 15th, place will be decided at council meeting this week.

Kite flying competitions on Wimbledon Common, May 25th, at 3 o'clock.—Entries close last post Tuesday, May 21st.

The Baden-Powell Challenge Shield for best kite of the year, presented by Major B. Baden-Powell. Prizes: 1st, gold medal, and winner to hold shield for year; 2nd, silver medal; 3rd, bronze medal. Open to members only.

Rules: 1. Competitors may submit kites of any kind or size. The kites to be raised simultaneously, at the sound of the bugle, when ordered by judges, and each kite, having a cord or wire 300 yards long. The cord or wire may be of any size or kind.

2. A bugle will announce the start and finish of the competition.
3. Competitors must be at the judges' flag at 2.30 sharp, any competitor not present at that time will be disqualified.
4. The judges will measure the angle of kites when in flight.
5. Competitors must note that competition will last until a bugle sounds, and if the kite falls to the ground during that time it will be disqualified.
6. Classification will be made in the following manner:—40 marks for angle of kite, 30 marks for stability, 30 marks for collapsibility, strength and construction. Previous holders: W. Barton, 1909; A. W. Brown, 1910 and 1911.

**Competitions.**—Arrangements have been made to have a flying day at Hendon, at the invitation of Mr. Claude Grahame-White, who will give two silver trophies for competitions open to boy scouts. Details will be issued shortly, with date, and other competitions to be held.

W. H. AKEHURST, Hon. Sec.

27, Victory Road, Wimbledon.

## PROGRESS OF FLIGHT ABOUT THE COUNTRY.

Notes regarding Clubs must reach the Editor of *FLIGHT*, 44, St. Martin's Lane, London, W.C., by first post Tuesday at latest.

### MODEL CLUBS.

**Aero-Models Assoc. (N. Branch)** (Sec., MALCOLM B. ROSS 15, HIGHGATE AVENUE, N.).

ON Saturday at Finchley, H. E. Fletcher flying a model of novel construction. The propellers are ranged one above the other off a vertical A frame. Excellent straight flights were accomplished with this machine, and the stability was very noticeable. R. G. Corder's best official flight, 410 yards in 37 secs. M. B. Ross's machine did over 250 yards, and duration 33 secs. Messrs. H. T. Tosh, L. Tosh, and G. O. Partridge also flying. The latter's model covered 454 yards on the 20th at Finchley. W. G. Pidsley was testing a biplane; propeller brackets too weak.

Open duration competition at Finchley to-day (Saturday) at 3 p.m. General meeting at 15, Highgate Avenue, N., May 8th, at 7.30 p.m., when the reorganisation of the club will be discussed.

**Baildon and District Aero Club** (Hon. Sec., J. C. WHITTAKER, SUMMERSEAT, BAILDON, YORKSHIRE).

THIS club has been formed in this district. All persons interested in aviation should apply to the secretary as above. A good prize has been offered for the first model (home made) to fly 250 yards, and another for the first aquaplane to rise off the water.

**Birmingham Aero Club** (Secs., R. COBHAM, G. H. WOOD, 8, FREDERICK ROAD, EDGBASTON).

**MODEL REPORT.**—Meeting, White Lion Fields, Fazeley, near Tamworth, to-day (Saturday) at 3.30 p.m. Next monthly meeting, non-members invited, at Bell Inn, Phillips Street, May 6th, at 8 p.m. Results, last week's gliding competition: 1st, E. Trykle, 188 ft.; 2nd, W. Lunn, 178 ft.

In regard to last week's notes, Mr. Lunn's flight of 25 secs. was

made with a tractor monoplane, as also was Mr. Haddon Wood's flight of 120 yards.

**Blackheath Aero Club** (Hon. Sec., A. E. WOOLLARD, 48, HAFTON ROAD, CATFORD, S.E.).

CONTEST with Ealing and District Aero Club for distance and duration, eliminating contests May 25th and 26th, under following conditions: Duration, for each second of time the model remains in the air to count as 1 point; distance, the distance between starting-point and landing-place of model to be measured, each yard to count as 1 point. The team to represent the B.Ae.C. will consist of the four members who score the highest number of points. Duration and distance to be taken separately, but it is not necessary to fly the same model in each event.

Will members who have not already done so, fit a protector to the front of their machines, and so avoid, as far as possible, likely trouble, more especially when flying on public ground.

Saturday, at Grove Park, Morris, Pizey, and Brown flying; Woollard and Dollittle on Wimbledon Common.

Sunday, Blackheath—Hunt, Brough, Whitworth, and Dollittle.

To other clubs:—There is a prevalent opinion in the B.Ae.C. that if a meeting could be arranged with the K. and M.A.A. and a few representatives from the other clubs, respecting affiliation, and the standardisation of tests for 1st, 2nd, and 3rd, and superior *brevet*, it would be to the benefit of each club. Will the K. and M.A.A. kindly take this matter in hand?

**Brighton and District Model Aero Club** (Hon. Sec. A. VON WICHMANN, "KINGSLEIGH," KINGSWAY, HOVE).

SATURDAY at Shoreham wind very bad, Bate getting 40 and 50 secs. Barca and Humphries flying, and Hervey doing good things with Mann-type. Burghope getting 40-45 secs. with re-propellered model built last October.

Sunday, Burghope testing new 0-2-P-1 (Farman) type. With single propeller flies well with no vertical surfaces.

**Bristol Model Flying** (Sec., R. V. TIVY, 3, ROYAL YORK CRESCENT, CLIFTON).

MEETING on April 27th. Excellent high flights by 1-1-2P and 1-1-P machines in gusty wind. Only "rising from ground" model too light to compete for prize offered for first flight of 100 yards, which may be competed for at meetings on May 8th, at 6.30 p.m., and May 11th, at 3 p.m., at Sea Walls.

**Coventry Aeroplane Building Society** (Sec., J. W. SCHOFIELD, 22, KINGSTON ROAD, EARLSDON).

MEMBERS met in new workshop, Godiva Street, last week. They are now very busy fixing benches, &c. Tools have been acquired for use, and it is proposed at once to proceed with construction of glider; visits from anyone interested welcomed.

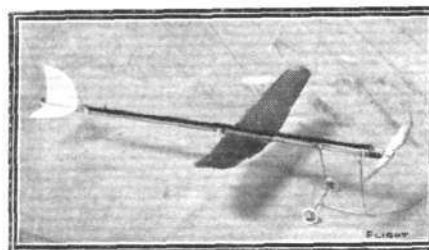
**Croydon and District Aero Club** (158, HIGH STREET).

Last week Mr. Bell had a new biplane out, Mr. C. Smither his "rise-off" monoplane (weight 5 ozs., length 3 ft.), Mr. Roden his single-propeller model; M. P. Hart and the Secretary working with "rise-off" models. Steering competition to-day (Saturday) and flying at Sanderstead and Duppas Hill every evening.

**Ealing and District Aero Club** (Sec., B. J. KIRCHNER, 1, QUEEN'S GARDENS, EALING, W.).

ON Saturday, at Greenford, some 20 or so flyers were present. Result of contest with Paddington Ae.C. was a win for Ealing Club with an average of 39½ secs., to Paddington Ae. C.'s average of 33½ secs. The average was taken from the best flights of the first

four in each team, three flights being allowed. Ealing Ae. Club: 1. A. Houlberg, 60 secs.; 2. C. Davies, 33 secs.; 3. B. J. Kirchner, 33 secs.; 4. C. Chilcott, 31½ secs.; 5. D. Chown, 29½ secs.; 6. L. Roche, 12 secs. Paddington Ae. Club: 1. C. Levy, 39 secs.; 2. Chalfont, 36½ secs.; 3. Lane, 31½ secs.; 4. Evans, 26½ secs.; 5. Carter, 26½ secs.; 6. Woolley, 19 secs. Decimal places disregarded. M. E. W. Twining officiated. Mr. Houlberg's model on one occasion landed in the River Brent over ¼ mile away after a good flight, and thus was rather handicapped in after flights; nevertheless he got 60 secs. Messrs. Twining and Davies had their kites up very good angles the whole afternoon, as also had L. and C. Roche and P. Esch. Mr. L. Roche was experimenting with gliders launched from a kite, and obtained durations of 38 and 43 secs. Later, after releasing a glider (20 ins. span, bird shape) from his kite, 250 ft. up, a glide of 78 secs. was obtained, the model landing over half-a-mile away, after circling once during which a soar was made. This shows that the model has a gliding angle of 1 in 10. On previous day A. Houlberg's model was launched in a similar manner, and a flying duration of 75 secs. was obtained, including 10 secs. *vol plané*.



The new rising-from-the-ground Mann and Grimmer tractor model, which is a good 200 to 300 yards certain flyer.

A mistake appeared in last week's report of Aero Models Association (N. Branch) *re* inter-club contest. We did not have 6 men to A.M.A.'s 4. Mr. Davies did *not* fly, but helped to judge. Flying to-day (Saturday) and Sunday at Greenford at 2.30 p.m.

**Hackney and District Aero Club** (Sec., B. H. LONGSTAFFE, 47, JENNER ROAD, STOKE NEWINGTON, N.).

SATURDAY three members were flying triple-screw monoplanes. Duration contest to-day (Saturday); first prize, pair of 10-in. carved propellers.

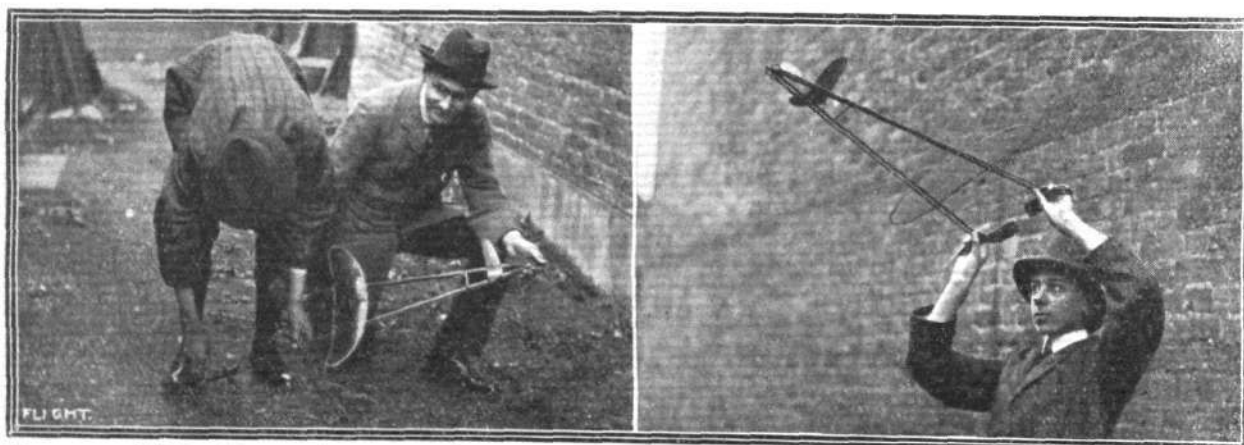
**Manchester Model Ae.C.** (40, BIGNOR STREET, CHEETHAM).

Next meeting at the Twyford Aerodrome to-day (Saturday) at 2.30 p.m. Prizes of 7s. 6d. and 2s. 6d. will be awarded upon the following formula: 
$$\frac{\text{Total wt.} \times \text{duration of flight}}{\text{wt. of elastic used}}$$

**Paddington and Districts Aero Club** (Sec., W. E. EVANS, 133, BUCHANAN GARDENS, HARLES DEN).

MODEL REPORT.—Committee have passed rule that all models must be fitted with a protector over motor-rod, members not complying with this rule will be debarred from flying on the club ground.

The return inter-club contest with Ealing at Greenford resulted in a win for Ealing, with an average duration of 39½ secs. against Paddington's 33½ secs. Mr. A. Houlberg (Ealing) did by far the best performance, viz., 60 secs., the next best being Mr. C. Levy's (Paddington) 39 secs.



The latest type "Mann" monoplane, a machine which, we learn from Messrs. Mann and Grimmer, the makers, has been sent out to practically every part of the world in response to their advertisement appearing in FLIGHT. On the left Mr. Mann winding up the model by means of the firm's geared winder, Mr. Grimmer holding the machine. On the right Mr. Mann in the act of launching the model.



These inter-club contests have proved quite successful, and the secretary invites other clubs in the London district desiring to arrange such contests to communicate with him for this purpose.

Certificate tests for distances will be the feature of the flying at Parkside this Saturday.

**Reigate, Redhill and District Aero Club** (Sec., H. V. MAY, 4, LONDON ROAD, REIGATE).

WORKSHOP is now in full swing. The opening of this shop should bring along new members rapidly.

Good flying most evenings by Sutton and Lewis. Norton and May have also been out. The "Rawson" cup will be competed for on May 29th.

**St. Mary's Model Aero Club** (Sec., EDGAR EBURNE, THE VICARAGE, KINGSTON, PORTSMOUTH).

MONTHLY aggregate competition decided at Widley in a rather boisterous wind. Official results: Distance—1st, E. Restall, 380 yards; 2nd, E. Eburne, 370 yards (Burr monoplane); 3rd, B. Harper, 260 yards (Burr monoplane). Duration—1st, E. Eburne, 52 secs.; 2nd, E. Restall, 11 secs.; 3rd, E. Byerly, 10 secs. Directional Control—1st, E. Eburne (Burr).

The prizes for the Easter Monday competition were presented to the respective winners at the meeting on April 24th, viz., Duration—1st, C. Restall, silver medal; 2nd, B. Harper, silver medal. Distance—1st, E. Eburne, silver medal; 2nd, C. Restall, materials; 3rd, B. Harper, materials. Novices' Competition—1st, B. Harper, 4 dozen yards rubber.

An open competition shortly. Next business meeting, May 7th, at 8 o'clock p.m.

Flying meeting on South Common, Southsea Common, Wednesday evening, at 7 o'clock.

**Scottish Ae.S. Model Aero Club** (6, McLELLAN STREET, GOVAN).

ON SATURDAY a hydro-aeroplane meeting was held at the pond, Victoria Park, Whiteinch, before a big crowd of spectators. Mr. C. Arthur's model made several brilliant efforts, the best being one in which it rose from the water in about two seconds, mounted to a fine altitude and flew for a distance of 324 feet. Mr. J. Donaldson's new type of twin-tractor hydro-monoplane made a few hops. Mr. J. S. Gordon also experimenting. Messrs. Ross and Gordon were flying ordinary "flyers."

To-day (Saturday), meeting at the racecourse, St. James' Park, Paisley. Saturday, 11th May, a hydro-aero meeting at the pond, Maxwell Park, Pollokshields.

Members are kindly requested to keep 25th May open, as on that date the club is having an outing to Broomhill Homes, Kirkintilloch.

**Stony Stratford and District Kite and Model Aero Club** (Hon. Sec., O. HAMILTON, JUN., OLD STRATFORD).

A competition has been arranged for each month for either class (kites or models), the best flights, &c., during the month to count for prizes. Rules and further particulars from the secretary. Meetings fortnightly on club ground after last meeting in May until last meeting in August, commencing 7.30 p.m. As the article in FLIGHT, April 20th, on flying unprotected models, it has been resolved "That members be recommended to fit a protector on their models." Entries for competitions on May 4th received up till 2 p.m. on ground. Election of committee and officers for ensuing six months on May 9th.

**Whitehead (Belfast) Model Aero Club** (Hon. Sec., JACK TURTLE, INNISFALLEN, WHITEHEAD, CO. ANTRIM).

THE above club, although founded in 1910, has been practically quiescent until recently, when it was re-organised, and promises exceedingly well for the future. First flying meeting was held Saturday last: Wm. M'Cormick, with a Trykle-type model, got 22 secs. duration; the secretary (similar model) 20 secs. C. Whiting also made long flight. Secretary's model best altitude at 60 ft. Figures may seem low, but it was the first appearance of the models.

**Windsor Model Flying** (Sec., S. CAMM, 10, ALMA ROAD).

E. A. DOWSETT, S. Camm, E. Stanbrook, F. Camm, Parsons, R. Ververs and Hamblin flying models Saturday—bad gale and many smashes. Contest at Aldershot shortly. Flying to-day (Saturday) at the Home Park at 2.30.

**Worcester Model Aero Club** (Sec., S. A. SEARS, VICTORIA INSTITUTE, WORCESTER).

MEMBERS all out on Thursday and Saturday last week. Mr. Melhuish raised club duration record to 38 secs., it being previously held by Mr. Pollard, with 26 secs.

Monthly competition to-day, Saturday, on Pitchcroft, at 3 o'clock.

## ✱ ✱ ✱ ✱

# CORRESPONDENCE

\* \* The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

Correspondents communicating with regard to letters which have appeared in FLIGHT, would much facilitate ready reference by quoting the number of each letter.

### Aeroplane Stresses.

[1538]. I find that my remarks on stresses at the Aeronautical Society last Monday have given rise to some misunderstanding of my meaning; so perhaps you would be good enough to publish this letter.

I did not mean that the maximum stress possible in any case is five times normal, as several people seem to suppose, but merely that in the hypothetical case under discussion, and at the speeds which were considered, the maximum possible stress would be five times normal.

The maximum stress is dependent on:—

1. The gliding angle of the aeroplane.
2. The gliding angle of the planes only.
3. The resistance of the planes at the angle which produces no lift.
4. The wing curve employed.
5. The normal gliding speed.
6. The weight carried per square foot.

Moreover, it is a feature of the stresses on an aeroplane that although perhaps it is not possible to dive or flatten out at a greater rate than a certain value dependent on characteristics of the machine (size of tail, &c.), yet, owing to *remous* and gusts at different angles to the line of flight, it is possible to get practically instantaneous changes in the angle of incidence, which may be serious between the angles of 7° and 15°.

Richmond.

L. HOWARD-FLANDERS.

### Position of Engine on Biplanes.

[1539] Mr. Bedford's suggested improvement would involve re-designing the machine in question. As he may have noticed, the tail of a Farman-type biplane is covered with castor oil from the Gnome engine, and the pilot and passenger would have to be protected. The elevator control system would have to be altered, as would also the chassis to accommodate the tractor. The great merit of the Farman-type machine is the extended view which may be obtained both by pilot and passenger. Having impaired this

view by placing the pilot behind the planes, it would be just as well to design a completely new and more up to date tractor biplane with monoplane fuselage.

R. V. TIVV.

### Aviation Insurance.

[1540] We read with considerable attention a letter appearing in your last week's issue from Mr. P. Harrington Edwards, whose interest in aviation is, of course, well known.

We are somewhat surprised, however, to note that he appears to suggest that it is practically impossible for a professional aviator to effect a life insurance. This is not the case, and we have effected a considerable number of insurances upon the lives of professional aviators, although not, of course, at the ordinary rates.

We do think that the suggestion made by Mr. Edwards that there should be an inquiry as to the different stand-point taken by the different companies would serve an extremely useful purpose.

We should be obliged if you would allow us to trespass on your space still further to deal with the three examples given by Mr. Edwards.

a. He refers to the prohibitive expense of insurance against third party damage. This can be done at quite a reasonable figure and protection is given for claims that may arise in connection with damage done to persons, to property, or to animals. The rates, of course, vary with the class of risk.

b. The refusal of a client of Mr. Edwards to fly as a passenger because his insurance policy expressly bars such flight. We think in a case of this description we should advise Mr. Edwards to persuade his client to change the office in which his client is insured, as it is not usual for insurance companies to make such stipulations, except with aviators.

c. Mr. Edwards deals with the case of a man with small capital who wishes to take up flying as a profession, but does not want to risk the whole of his capital in the purchase of a machine which he cannot insure. Here again, Mr. Edwards has not made sufficient enquiries, or he would have ascertained that an aeroplane can usually be insured against fire and burglary, which are, of course, very serious risks.

We agree with Mr. Edwards that in some cases the rates may

appear prohibitive and any figures given by you as to the comparative safety of flight will, we feel sure, meet with the respect they deserve from the insurance offices.

We may say that we have made a particular study of aviation risks and quite appreciate that any diminution in the rates would lead to increase of business and, therefore, the interests of aviators and the interests of insurance brokers are identical in this case.

We trust that you will excuse our taking up so much space in your valuable paper.

DEIGHTON PATMORE AND CO.

43, Leicester Square, W.C.

## Top Pressure on Wing Surfaces.

[1541] IN reference to the statements that you have recently published in your excellent journal with regard to the insufficient strength in the upper trussing of monoplane wings, it has occurred to me that in addition to monoplanes, those biplanes that are fitted with what is generally known as extensions, should come under the same category. Even though the recent disclosures have suggested a hitherto unrecognised cause for many of the accidents that have marred the progress of flight, it has always seemed to me that these extensions were by far too weak, and in rough weather I have always looked at an extension biplane in flight with a certain amount of suspicion and have felt anxiety for the occupants in case one of these flimsily braced extensions should collapse. As you know, two methods are employed in bracing them. One method is to erect a pair of masts at the end of and above the *cellule*, from which the extension is braced by tension wires as would be a monoplane wing. The other method is to support the extensions from the end of the bottom plane by two steel tubes. In this latter case especially I think something ought to be done to make for greater strength, for I hardly believe that two steel rods of such small cross-section and of such relatively long length would be sufficient to withstand much compression.

Wishing you a continuance of the success your paper has all along met with.

EGAVAS.

## The Aircraft Factory Aeroplane.

[1542] I have heard very glowing accounts from acquaintances who have seen the Army B.E. 2 Aeroplane in flight, which is said to be far in advance of all other machines as regards steadiness, speed and general appearances. As there is so much talk just now regarding England's backwardness in aeroplane construction, especially in relation to the War Office, I should like to know if there is anything really wonderful about the B.E. 2.

Harrow.

EDWARD H. QUINN.

## Redivalls Model.

[1543] I should be much obliged if your correspondent, Mr. W. H. Booth (1504), would inform me as to whether his Redivalls patent refers to models having a diamond-shaped piece in the centre of the main plane or whether it refers to models having upturned tips to the main plane.

Crawford Street, W.

B. F. HUSSEY.

## British Manufacturing Firms.

[1544] I notice with some interest that the Farman advertisement appearing in FLIGHT now bears an English address and also the title of a new company, with an admirably chosen English name—"Aircraft."

Perhaps you will permit me to enquire whether the Aircraft Co. intends actually to follow the trade implied by its so well chosen name or whether it is merely going to import foreign-built machines from France. I have an interest in writing that is doubtless common to other readers of FLIGHT who are watching with more than a little concern the policy of the Government that you very justly defended in your last issue. We are all agreed, I think, that the Government owes it to the Flying Corps that the pilots of that new arm should have an adequate opportunity of obtaining personal experience of original foreign-built machines. But, we all want to hasten the day when it is the British workman who is receiving the wages for construction, and it occurs to me that that day is likely to be more expeditiously reached if the Government are in a position to buy British-built originals of the foreign machines they require from actual British firms duly manufacturing under licence. In these days of small beginnings even the outsider likes to take a personal interest in commerce and, sad at the loss of the Aeronautical Syndicate, I for one should welcome the Aircraft Co. to fill a gap in the ranks of British construction concerns—especially if they are going to employ Englishmen at the work.

"CRAFTSMAN."

## Aviation at the Naval Review.

LIEUT. LONGMORE, R.N., recently made a visit to Portland, with the object, it is understood, of finding a suitable piece of ground to serve as a centre from which to make flights in connection with the Naval Review and Manœuvres on Monday and the following days. The battleship "Hibernia" has been fitted up with a launching platform, and is taking four machines, including one monoplane, from Sheerness to Portland for the Review.

## More Deperdussin for the British Army.

THE War Office has ordered from the British Deperdussin Aeroplane Co., Ltd., several more Deperdussin monoplanes similar to that delivered to the Admiralty recently. The machines will be built in London, and will be delivered within the next four or five weeks.

## A Lift to Brooklands Track.

COMMENCING on Saturday next, Mr. H. H. Beach, of the Holstein Garage, Weybridge, has arranged to run a motor waggone between Weybridge Station and the Byfleet entrance to Brooklands track. The vehicle will run on Sundays, and on any day when there is sufficient attraction to draw visitors. The fare will be one shilling each way.

## A Unique Signpost.

ON the main London to Brighton Road at Bromley South, a curious signpost has recently been erected. One of the three directing arms, having the inscription Hastings and Paris, carries a model of a Blériot monoplane; another, pointing to London and John O'Groats, has a racing motor car, while the third arm, directing to Croydon, is surmounted by a motor-bike. The post also carries advertisements referring to the Bromley South Motor Garage, &c. and it is surmounted by a model of a biplane, arranged in weather-cock fashion.

## Shell Spirit for Aviators.

WE understand that during his trip from Holyhead to Dublin Mr. Vivian Hewitt used Shell motor spirit, and Lieut. A. M. Longmore, R.N., used the same spirit during the flight which won for him the Mortimer Singer Naval prize.



## Aeronautical Patents Published.

Applied for in 1911.

Published May 2nd, 1912.

9,445. J. A. MOREAU. Aeroplanes.  
17,854. J. W. SECKERSON. Control of flying machines.

## PRINCIPAL CONTENTS.

	PAGE
Editorial Comment—	
Aviation Insurance	388
The Royal Aircraft Factory	388
The Flight Pioneers—Mr. Vivian Hewitt	389
Second Spring Meeting at Hendon	390
From the British Flying Grounds	392
The Irish Sea Flight	394
Royal Aero Club Notes	395
Conference at the House of Commons on Naval and Military Aviation	396
Foreign Aviation News	397
British Notes of the Week	397
Airship News	399
The Accident to Vedrines	400
Eiffel. Notes on Mr. Handley Page's Lecture to Members of the Royal Aeronautical Society	401
Models. Conducted by V. E. Johnson, M.A.	406
Progress of Flight about the Country	407
Correspondence	409

## FLIGHT.

44, ST. MARTIN'S LANE, LONDON, W.C.

Telegraphic address: Truditor, London. Telephone: 1828 Gerrard.

## SUBSCRIPTION RATES.

FLIGHT will be forwarded, post free, to any part of the world at the following rates:—

UNITED KINGDOM.	ABROAD.
3 Months, Post Free ... 1 8	3 Months, Post Free ... 2 9
6 " " ... 3 3	6 " " ... 5 6
12 " " ... 6 6	12 " " ... 11 0

Cheques and Post Office Orders should be made payable to the Proprietors of FLIGHT, 44, St. Martin's Lane, W.C., and crossed London County and Westminster Bank, otherwise no responsibility will be accepted.

Should any difficulty be experienced in procuring FLIGHT from local news-vendors, intending readers can obtain each issue direct from the Publishing Office, by forwarding remittance as above.